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60TH CONGRESS }
1st Session }

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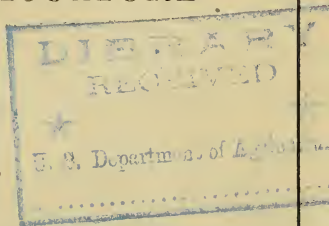
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No. 429 }

ESTIMATES OF EXPENDITURE

FOR

DEPARTMENT OF AGRICULTURE

1909



LETTER FROM THE SECRETARY OF AGRICULTURE,
TRANSMITTING, PURSUANT TO LAW, CLASSI-
FIED AND DETAILED ESTIMATES OF EVERY
SUBJECT OF EXPENDITURE INTENDED
FOR THE DEPARTMENT FOR THE
NEXT FISCAL YEAR

APRIL 9, 1908.—Referred to the Committee on Agriculture and Forestry
and ordered to be printed with accompanying papers.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1908

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D. C., April 8, 1908.

SIR: As required by act of March 4, 1907 (Statutes at Large 34, p. 1282), I have the honor to transmit herewith classified and detailed estimates of every subject of expenditure intended for the Department of Agriculture for the next fiscal year and detailed reports of all expenditures under any appropriation for such service during the fiscal year ended June 30, 1907.

Very respectfully,

JAMES WILSON,
Secretary.

THE PRESIDENT OF THE SENATE.

NOTE.—The detailed reports of expenditures during the fiscal year ended June 30, 1907, referred to in the foregoing letter of transmittal, are printed in Senate document No. 425, Sixtieth Congress.

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DEPARTMENT OF AGRICULTURE.

Classified and detailed estimates of every subject of expenditure intended for the Department of Agriculture for the fiscal year ending June 30, 1909.

OFFICE OF THE SECRETARY.

[Salaries, Department of Agriculture, Office of the Secretary—\$134,220.]

| | |
|---|---------------|
| Secretary of Agriculture..... | \$12, 000. 00 |
| Assistant Secretary of Agriculture, \$5,000; and the Assistant Secretary is hereby authorized to perform such duties in the conduct of the business of the Department of Agriculture as may be assigned by the Secretary of Agriculture..... | 5, 000. 00 |
| Solicitor (increase of \$1,000 submitted)..... | 4, 500. 00 |
| Chief clerk, \$2,500 (and \$500 additional submitted as custodian of buildings)..... | 3, 000. 00 |
| Private secretary to the Secretary of Agriculture..... | 2, 500. 00 |
| Stenographer and executive clerk to the Secretary of Agriculture (increase of \$200 submitted)..... | 2, 200. 00 |
| Private secretary to the Assistant Secretary of Agriculture..... | 1, 600. 00 |
| Stenographer to the Assistant Secretary of Agriculture..... | 1, 400. 00 |
| One appointment clerk (increase of \$200 submitted)..... | 2, 200. 00 |
| One chief of supply division..... | 2, 000. 00 |
| One inspector..... | 2, 000. 00 |
| One telegraph and telephone operator..... | 1, 400. 00 |
| One telegraph and telephone operator..... | 1, 200. 00 |
| One clerk of class 4..... | 1, 800. 00 |
| Three clerks of class 3..... | 4, 800. 00 |
| Five clerks of class 2 (transfer of 2 from lump-fund roll of Forest Service and one from lump-fund roll of Bureau of Animal Industry, and a decrease of 1 by transfer from roll of the Secretary's office to the Division of Accounts, making a net increase of 2 submitted)..... | 7, 000. 00 |
| Seven clerks of class 1..... | 8, 400. 00 |
| Five clerks, at \$1,000 each (increase of 3 submitted by transfer from the lump-fund roll of the Bureau of Animal Industry and the statutory rolls of the Forest Service and Bureau of Statistics)..... | 5, 000. 00 |
| Two clerks, at \$900 each (increase of 1 submitted, by transfer from the lump-fund roll of the Bureau of Plant Industry)..... | 1, 800. 00 |
| One clerk..... | 840. 00 |
| Six clerks, or laborers, at \$720 each..... | 4, 320. 00 |
| One chief engineer, who shall be captain of the watch..... | 1, 600. 00 |
| One assistant engineer (submitted)..... | 1, 100. 00 |
| NOTE.—One fireman, who shall be a steam fitter, at \$900, has been dropped. | |
| Two assistant engineers, at \$1,000 each (submitted)..... | 2, 000. 00 |
| Four firemen, at \$720 each (submitted)..... | 2, 880. 00 |
| NOTE.—Three assistant firemen, at \$720 each, and one assistant fireman, at \$600, have been dropped. | |
| Four elevator conductors, at \$720 each (submitted)..... | 2, 880. 00 |
| One cabinetmaker (submitted)..... | 1, 100. 00 |
| One carpenter..... | 1, 000. 00 |
| One electrician..... | 1, 000. 00 |
| One painter..... | 900. 00 |
| One painter..... | 720. 00 |
| One plumber..... | 900. 00 |
| One blacksmith..... | 840. 00 |
| One lieutenant of the watch..... | 1, 000. 00 |
| Sixteen watchmen, at \$720 each (in lieu of 13 night watchmen, and 2 day watchmen, at \$720 each, dropped at this place on the roll, and an increase of 1 submitted)..... | 11, 520. 00 |
| One mechanic..... | 1, 100. 00 |
| Seven clerks or messengers, at \$840 each..... | 5, 880. 00 |

OFFICE OF THE SECRETARY—Continued.

| | |
|--|--------------|
| Two assistant messengers, at \$720 each..... | \$1, 440. 00 |
| Two assistant messengers, at \$600 each..... | 1, 200. 00 |
| One assistant messenger..... | 480. 00 |
| One skilled laborer..... | 840. 00 |
| One skilled laborer..... | 720. 00 |
| One skilled laborer..... | 660. 00 |
| Three skilled laborers, at \$600 each..... | 1, 800. 00 |
| One skilled laborer..... | 480. 00 |

NOTE.—One assistant messenger or laborer, at \$600, dropped.

| | |
|--|------------|
| One laborer..... | 600. 00 |
| Eleven laborers or charwomen, at \$480 each..... | 5, 280. 00 |
| One charwoman..... | 540. 00 |
| Five charwomen, at \$240 each..... | 1, 200. 00 |
| For extra laborers, emergency employments, and pay of rents..... | 7, 600. 00 |

Total amount estimated..... 134, 220. 00

NOTE.—There is an increase in the salary of 1 solicitor from \$3,500 to \$4,500, to make it conform to the salaries paid to solicitors in other Departments; 1 chief clerk, from \$2,500 to \$3,000, being an increase of \$500 for services as custodian of buildings, which is the same amount as paid to custodians of buildings in other Departments; 1 stenographer and executive clerk to the Secretary of Agriculture, from \$2,000 to \$2,200, and 1 appointment clerk from \$2,000 to \$2,200; total promotions, \$1,900.

The following places have been added by transfer from the rolls of other bureaus, and the amounts have been deducted from the appropriations of those bureaus, viz: Two clerks class 2; 3 clerks, at \$1,000 each, and 1 clerk, at \$900; total transfers, \$6,700. One cabinetmaker, at \$1,100, has also been transferred from the "emergency roll" of the Secretary's office, at the same salary, but the appropriation has not been reduced, as the entire amount will be needed: therefore it is a new place at \$1,100.

In rearranging the force of engineers, firemen, and watchmen for the new buildings, the following changes have been made, viz: One assistant engineer, at \$1,100; 2 assistant engineers, at \$1,000 each; 4 elevator conductors, at \$720 each; 4 firemen, at \$720 each, and one watchman, at \$720, have been added, aggregating \$9,580, and 1 fireman, who shall be steam fitter, at \$900, 3 assistant firemen, at \$720 each; 1 assistant fireman, at \$600, and one assistant messenger or laborer at \$600 have been dropped, aggregating \$4,260, or a net increase of \$5,320. To offset this the following places have been omitted from the rolls of the several bureaus which will be assigned quarters in the new buildings, and the appropriations of these bureaus have been reduced accordingly, viz: Two watchmen, at \$720 each, and 1 watchman, at \$600, in the Bureau of Plant Industry; 1 messenger, acting as fireman, \$840; 1 fireman, at \$720; 1 messenger, at \$720, acting as watchman, and 1 skilled laborer, at \$720, acting as watchman, in the Bureau of Animal Industry; and 1 fireman, at \$840, and 2 watchmen, at \$720 each, in the Bureau of Soils, aggregating \$7,320, making a net reduction in force of \$2,000 by removal to new buildings. Considering all the above increases in connection with the decreases made in the appropriations of the several bureaus, there is a net increase in the Secretary's roll of only \$1,000, as follows:

| | |
|---|--------------|
| Promotions on Secretary's roll..... | \$1, 900. 00 |
| Cabinetmaker (new place) on Secretary's roll..... | 1, 100. 00 |
| Transfer of clerks from bureaus..... | 6, 700. 00 |
| Watchmen and firemen added to Secretary's roll..... | 9, 580. 00 |
| Total..... | 19, 280. 00 |
| Decrease of watchmen and firemen on rolls of several bureaus..... | \$7, 320. 00 |
| Decrease of clerks on rolls of several bureaus..... | 6, 700. 00 |
| Places dropped from Secretary's roll..... | 4, 260. 00 |
| | 18, 280. 00 |
| Net increase..... | 1, 000. 00 |

NOTE.—A slight rearrangement has been made in the above roll as regards laborers, charwomen, assistant messengers, etc., for the purpose of simplifying the same. It involves no change in salary.

OFFICE OF THE SECRETARY—Continued.

| | |
|--|----------------|
| Amount of above appropriation for fiscal year 1907 (including \$1,300 for increase in salary of Secretary of Agriculture)..... | \$114, 500. 00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$4,700)... | 119, 200. 00 |
| Amount estimated for fiscal year 1909 (apparent increase of \$15,020).... | 134, 220. 00 |

The above force will perform the following duties:

Administrative and executive:

| | |
|--|---------------|
| Secretary of Agriculture..... | \$12, 000. 00 |
| Assistant Secretary of Agriculture..... | 5, 000. 00 |
| Chief clerk of Department..... | 3, 000. 00 |
| Private secretary to Secretary of Agriculture..... | 2, 500. 00 |
| Private secretary to Assistant Secretary of Agriculture... | 1, 600. 00 |
| Stenographer and executive clerk..... | 2, 200. 00 |
| Stenographer to Assistant Secretary..... | 1, 400. 00 |
| One inspector..... | 2, 000. 00 |
| One clerk, class 3..... | 1, 600. 00 |
| Two messengers, at \$840 each..... | 1, 680. 00 |
| One laborer..... | 720. 00 |
| | <hr/> |
| | 33, 700. 00 |

Office of Solicitor:

| | |
|--|--------------|
| One solicitor..... | \$4, 500. 00 |
| Two clerks, class 2..... | 2, 800. 00 |
| Two clerks, class 1..... | 2, 400. 00 |
| (Lump-fund appropriations.) | |
| One clerk, class 1 (from Bureau of Plant Industry)..... | 1, 200. 00 |
| Two clerks, class 4 (one from Bureau of Animal Industry and other from Bureau of Chemistry)..... | 3, 600. 00 |
| One messenger..... | 480. 00 |
| | <hr/> |
| | 14, 980. 00 |

Appointment Division:

| | |
|------------------------------|--------------|
| One appointment clerk..... | \$2, 200. 00 |
| One clerk, class 4..... | 1, 800. 00 |
| Two clerks, class 3..... | 3, 200. 00 |
| Two clerks, class 1..... | 2, 400. 00 |
| One clerk..... | 1, 000. 00 |
| One clerk..... | 900. 00 |
| One clerk..... | 720. 00 |
| One messenger..... | 840. 00 |
| One assistant messenger..... | 720. 00 |
| One assistant messenger..... | 600. 00 |
| One assistant messenger..... | 480. 00 |
| | <hr/> |
| | 14, 860. 00 |

Supply Division:

| | |
|-----------------------------------|--------------|
| One chief of supply division..... | \$2, 000. 00 |
| One clerk, class 2..... | 1, 400. 00 |
| One clerk, class 1..... | 1, 200. 00 |
| One clerk..... | 1, 000. 00 |
| One messenger..... | 840. 00 |
| One laborer..... | 480. 00 |
| | <hr/> |
| | 6, 920. 00 |

File room:

| | |
|----------------------------------|--------------|
| Two clerks, class 2..... | \$2, 800. 00 |
| One clerk, class 1..... | 1, 200. 00 |
| One clerk..... | 840. 00 |
| Two clerks, at \$1,000 each..... | 2, 000. 00 |
| One clerk..... | 720. 00 |
| | <hr/> |
| | 7, 560. 00 |

Telegraph and telephone section:

| | |
|---|--------------|
| One telegraph and telephone operator..... | \$1, 400. 00 |
| One telegraph and telephone operator..... | 1, 200. 00 |
| One laborer..... | 720. 00 |
| | <hr/> |
| | 3, 320. 00 |

OFFICE OF THE SECRETARY—Continued.

Engineers, watchmen, messengers, laborers, charwomen, etc., for heating and lighting, messenger work, and care and preservation of the Department buildings and grounds:

| | | |
|---|------------|--------------------|
| One chief engineer..... | \$1,600.00 | |
| One assistant engineer..... | 1,100.00 | |
| Two assistant engineers, at \$1,000 each..... | 2,000.00 | |
| Four firemen, at \$720 each..... | 2,880.00 | |
| Four elevator conductors, at \$720 each..... | 2,880.00 | |
| One electrician..... | 1,000.00 | |
| Sixteen watchmen, at \$720 each..... | 11,520.00 | |
| Three skilled laborers, at \$600 each..... | 1,800.00 | |
| One skilled laborer..... | 840.00 | |
| One skilled laborer..... | 480.00 | |
| One assistant messenger, at \$600..... | 600.00 | |
| One lieutenant of the watch..... | 1,000.00 | |
| One laborer..... | 600.00 | |
| Ten laborers, at \$480 each..... | 4,800.00 | |
| One charwoman..... | 540.00 | |
| Five charwomen, at \$240 each..... | 1,200.00 | |
| | | <u>\$34,840.00</u> |

Post-office:

| | | |
|--------------------------|------------|-----------------|
| One clerk, class 1..... | \$1,200.00 | |
| One clerk..... | 1,000.00 | |
| One skilled laborer..... | 660.00 | |
| One clerk..... | 720.00 | |
| | | <u>3,580.00</u> |

Rubber-stamp section:

| | | |
|--------------------------|------------|-----------------|
| One mechanic..... | \$1,100.00 | |
| One skilled laborer..... | 720.00 | |
| | | <u>1,820.00</u> |

Carpenter shop:

| | | |
|-----------------------|------------|-----------------|
| One cabinetmaker..... | \$1,100.00 | |
| One carpenter..... | 1,000.00 | |
| | | <u>2,100.00</u> |

Plumbing shop:

| | | |
|------------------|--|--------|
| One plumber..... | | 900.00 |
|------------------|--|--------|

Paint shop:

| | | |
|------------------|----------|-----------------|
| One painter..... | \$900.00 | |
| One painter..... | 720.00 | |
| | | <u>1,620.00</u> |

Blacksmith shop:

| | | |
|---------------------|--|--------|
| One blacksmith..... | | 840.00 |
|---------------------|--|--------|

Stable:

| | | |
|------------------------------|----------|-----------------|
| One messenger..... | \$840.00 | |
| One assistant messenger..... | 720.00 | |
| | | <u>1,560.00</u> |

Reserve force for detail to the various sections of the Secretary's office in cases of sickness and leaves of absence, and to the various bureaus of the Department in cases of emergency:

| | | |
|------------------------------------|----------|-----------------|
| One clerk..... | \$900.00 | |
| One clerk..... | 720.00 | |
| Two messengers, at \$840 each..... | 1,680.00 | |
| | | <u>3,300.00</u> |

Extra laborers, emergency employment, and pay of rents.....

7,600.00

Total..... 139,500.00

NOTE.—Of the above, the following will be detailed to the office of the solicitor from lump-fund appropriations:

| | | |
|--|------------|-----------------|
| Two clerks, class 4 (one from Bureau of Animal Industry and other from Bureau of Chemistry)..... | \$3,600.00 | |
| One clerk, class 1 (from Bureau of Plant Industry)..... | 1,200.00 | |
| One messenger..... | 480.00 | |
| | | <u>5,280.00</u> |

- 134,220.00

WEATHER BUREAU.

[Salaries, office of Chief of Weather Bureau—\$202,510.]

| | |
|---|------------|
| One chief of bureau..... | \$5,000.00 |
| One assistant chief of bureau..... | 3,000.00 |
| One chief clerk..... | 2,250.00 |
| Four chiefs of division, at \$2,000 each..... | 8,000.00 |
| One librarian and climatologist..... | 2,000.00 |
| Six clerks, class 4..... | 10,800.00 |
| Seven clerks, class 3 (increase of 1 submitted)..... | 11,200.00 |
| Eighteen clerks, class 2..... | 25,200.00 |
| Twenty-seven clerks, class 1 (increase of 1 submitted)..... | 32,400.00 |
| Eighteen clerks, at \$1,000 each (increase of 1 submitted).... | 18,000.00 |
| Nine clerks, at \$900 each..... | 8,100.00 |
| Four copyists or typewriters, at \$840 each..... | 3,360.00 |
| One copyist or typewriter..... | 720.00 |
| Two assistant foremen of division, at \$1,600 each..... | 3,200.00 |
| One proof reader..... | 1,400.00 |
| One chief mechanic..... | 1,400.00 |
| One lithographer..... | 1,300.00 |
| Three lithographers, at \$1,200 each..... | 3,600.00 |
| Two pressmen, at \$1,250 each..... | 2,500.00 |
| Ten compositors, at \$1,250 each..... | 12,500.00 |
| One skilled mechanic..... | 1,200.00 |
| Six skilled mechanics, at \$1,000 each (increase of 1 submitted)..... | 6,000.00 |
| One engineer..... | 1,200.00 |
| One captain of the watch..... | 1,000.00 |
| One electrician..... | 1,000.00 |
| Six skilled artisans, at \$840 each..... | 5,040.00 |
| Five messengers or laborers, at \$720 each..... | 3,600.00 |
| Three firemen, at \$720 each..... | 2,160.00 |
| Four watchmen, at \$720 each (increase of 1 submitted)..... | 2,880.00 |
| Five folders and feeders, at \$720 each..... | 3,600.00 |
| Three folders and feeders, at \$630 each..... | 1,890.00 |
| Six messengers or laborers, at \$660 each..... | 3,960.00 |
| Thirteen messengers, messenger boys, or laborers, at \$600 each..... | 7,800.00 |
| Four messengers, messenger boys, or laborers, at \$480 each.. | 1,920.00 |
| Five messengers, messenger boys, or laborers, at \$450 each.. | 2,250.00 |
| One charwoman..... | 360.00 |
| Three charwomen, at \$240 each..... | 720.00 |

Total amount estimated..... \$202,510.00

NOTE.—One clerk of class 3, 1 clerk of class 1, 1 clerk at \$1,000, 1 skilled mechanic at \$1,000, and 1 watchman at \$720 have been added. Total increase, \$5,520.

| | |
|---|--------------|
| Amount of above appropriation for fiscal year 1907..... | \$194,690.00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$2,300)..... | 196,990.00 |
| Amount estimated for fiscal year 1909 (increase of \$5,520)..... | 202,510.00 |

All of the above-named employees will be on duty in Washington and employed in the various divisions and sections as follows:

Accounts Division—Charge of the accounts of the Weather Bureau, including the leasing of offices and the construction and repair of buildings outside of Washington:

| | |
|---|-------------|
| **One assistant chief, Division of Accounts.. | \$2,500.00 |
| Two clerks, at \$1,600 each..... | 3,200.00 |
| Two clerks, at \$1,400 each..... | 2,800.00 |
| *One clerk..... | 1,400.00 |
| Four clerks, at \$1,200 each..... | 4,800.00 |
| Two clerks, at \$1,000 each..... | 2,000.00 |
| Two clerks, at \$900 each..... | 1,800.00 |
| One copyist..... | 840.00 |
| One messenger..... | 660.00 |
| | <hr/> |
| | \$20,000.00 |

**} See similar references on page 12.
* }

WEATHER BUREAU—Continued.

Administration:

| | | |
|------------------------------------|------------|-------------|
| One Chief of Bureau..... | \$5,000.00 | |
| One Assistant Chief of Bureau..... | 3,000.00 | |
| One chief clerk..... | 2,250.00 | |
| One clerk..... | 1,800.00 | |
| Two clerks, at \$1,600 each..... | 3,200.00 | |
| One clerk..... | 1,400.00 | |
| Four clerks, at \$1,200 each..... | 4,800.00 | |
| One clerk..... | 1,000.00 | |
| One copyist..... | 840.00 | |
| One messenger..... | 600.00 | |
| One messenger..... | 450.00 | |
| | | \$24,340.00 |

Climatological Division—Supervision of the observations taken by cooperative observers located in nearly every county in the United States, the printing of the climatic data that are collected, and the collection and distribution of special observations made in the cotton, corn, wheat, and fruit sections of the United States during the crop-growing season:

| | | |
|--------------------------------|------------|-----------|
| *One chief of division..... | \$2,750.00 | |
| One clerk..... | 1,800.00 | |
| One clerk..... | 1,600.00 | |
| One clerk..... | 1,400.00 | |
| One clerk..... | 1,200.00 | |
| Two clerks, at 1,000 each..... | 2,000.00 | |
| One clerk..... | 900.00 | |
| One messenger..... | 660.00 | |
| | | 12,310.00 |

Editorial Work—The preparation of the Monthly Weather Review, which contains the weather records for the United States for the month for which it is issued, and special contributions pertaining to meteorological subjects:

| | | |
|------------------------------------|------------|----------|
| *One professor of meteorology..... | \$3,000.00 | |
| One clerk..... | 1,200.00 | |
| | | 4,200.00 |

Forecast Division—Supervision of the forecast and warning work of the entire Bureau:

| | | |
|--|------------|-----------|
| *One professor of meteorology, in charge of division..... | \$3,000.00 | |
| *One professor of meteorology, who is fore-caster and in charge of river and flood work..... | 3,000.00 | |
| *One professor of meteorology, who is fore-caster and compiler..... | 3,000.00 | |
| Two clerks, at \$1,400 each..... | 2,800.00 | |
| Three clerks, at \$1,200 each..... | 3,600.00 | |
| Three clerks, at \$1,000 each..... | 3,000.00 | |
| One clerk..... | 900.00 | |
| One copyist..... | 840.00 | |
| | | 20,140.00 |

Instrument Division—Charge of the designing, manufacture, repair, selection, and issuing of instruments and apparatus used throughout the service:

| | | |
|---|------------|-----------|
| *One professor of meteorology, in charge of division..... | \$3,000.00 | |
| One clerk..... | 1,800.00 | |
| Two clerks, at \$1,400 each..... | 2,800.00 | |
| One chief mechanic..... | 1,400.00 | |
| One skilled mechanic..... | 1,200.00 | |
| Two skilled mechanics, at \$1,000 each..... | 2,000.00 | |
| One messenger..... | 720.00 | |
| One messenger..... | 600.00 | |
| | | 13,520.00 |

* See similar references on page 12.

WEATHER BUREAU—Continued.

Library—Contains over 30,000 volumes and pamphlets pertaining to meteorological subjects. The librarian is also a climatologist and the supervising examiner:

| | |
|--------------------------------------|------------|
| One librarian and climatologist..... | \$2,000.00 |
| One clerk..... | 1,400.00 |
| One clerk..... | 1,200.00 |
| One messenger boy..... | 480.00 |

\$5,080.00

Mechanical Work—Carpentry, electrical, and miscellaneous mechanical work required about the buildings and grounds:

| | |
|---|------------|
| Three skilled mechanics, at \$1,000 each..... | \$3,000.00 |
| One electrician..... | 1,000.00 |
| Two skilled artisans, at \$840 each..... | 1,680.00 |

5,680.00

Captain of the watch, and messenger and labor service:

| | |
|--|------------|
| One clerk..... | \$1,000.00 |
| One captain of the watch..... | 1,000.00 |
| One skilled artisan..... | 840.00 |
| Four watchmen, at \$720 each..... | 2,880.00 |
| Two laborers, at \$720 each..... | 1,440.00 |
| Four laborers, at \$600 each..... | 2,400.00 |
| Two messenger boys, at \$600 each..... | 1,200.00 |
| One laborer..... | 480.00 |
| One messenger..... | 480.00 |
| One messenger boy..... | 480.00 |
| Two messenger boys, at \$450 each..... | 900.00 |
| One laborer..... | 450.00 |
| One charwoman..... | 360.00 |
| Three charwomen, at \$240 each..... | 720.00 |

14,630.00

Ocean meteorology—Charge of the collection and issuing of marine meteorological data, the correction of barometers for vessel captains, and the preparation and distribution of marine information:

| | |
|----------------------------------|------------|
| One chief of division..... | \$2,000.00 |
| One clerk..... | 1,600.00 |
| Two clerks, at \$1,400 each..... | 2,800.00 |
| One clerk..... | 1,200.00 |
| Two clerks, at \$1,000 each..... | 2,000.00 |
| Three clerks, at \$900 each..... | 2,700.00 |
| One messenger boy..... | 600.00 |

12,900.00

Publications Division—Charge of the printing of weather maps, bulletins, forms, Monthly Weather Review, and other publications:

| | |
|---|------------|
| One chief of division..... | \$2,000.00 |
| One clerk..... | 1,800.00 |
| Two assistant foremen of division, at \$1,600 each..... | 3,200.00 |
| One clerk..... | 1,400.00 |
| One proof reader..... | 1,400.00 |
| One lithographer..... | 1,300.00 |
| Ten compositors, at \$1,250 each..... | 12,500.00 |
| Two pressmen, at \$1,250 each..... | 2,500.00 |
| Three lithographers, at \$1,200 each..... | 3,600.00 |
| One clerk..... | 1,200.00 |
| One engineer..... | 1,200.00 |
| One clerk..... | 1,000.00 |
| One skilled mechanic..... | 1,000.00 |
| Two skilled artisans, at \$840 each..... | 1,680.00 |
| Five folders and feeders, at \$720 each..... | 3,600.00 |
| Three firemen, at \$720 each..... | 2,160.00 |
| One laborer..... | 720.00 |

WEATHER BUREAU—Continued.

Publication Division—Charge of the printing of weather maps, bulletins, forms, Monthly Weather Review, and other publications—Continued.

| | | |
|---|----------|-------------|
| One messenger..... | \$720.00 | |
| Two laborers, at \$660 each | 1,320.00 | |
| Three folders and feeders, at \$630 each..... | 1,890.00 | |
| Two messengers, at \$600 each..... | 1,200.00 | |
| | | \$47,390.00 |

Records Division—Charge of the checking and compiling of meteorological data:

| | | |
|---|------------|-----------|
| * One professor of meteorology, in charge.... | \$3,000.00 | |
| One clerk..... | 1,800.00 | |
| Two clerks, at \$1,400 each..... | 2,800.00 | |
| Six clerks, at \$1,200 each..... | 7,200.00 | |
| Three clerks, at \$1,000 each..... | 3,000.00 | |
| Two clerks, at \$900 each..... | 1,800.00 | |
| One copyist..... | 840.00 | |
| One copyist..... | 720.00 | |
| One messenger..... | 600.00 | |
| | | 21,760.00 |

Supplies Division—Charge of the purchase and issuing of supplies:

| | | |
|------------------------------------|------------|-----------|
| One chief of division..... | \$2,000.00 | |
| Two clerks, at \$1,400 each..... | 2,800.00 | |
| Three clerks, at \$1,200 each..... | 3,600.00 | |
| One clerk..... | 1,000.00 | |
| One skilled artisan..... | 840.00 | |
| One laborer..... | 660.00 | |
| One messenger..... | 660.00 | |
| | | 11,560.00 |

Telegraph Division—Charge of the maintenance and repair of telegraph lines owned by the Weather Bureau, and the transmission and checking of all telegraph and telephone messages. Seven of the clerks in this division are also skilled operators, who daily receive and transmit the messages, reports, etc., required in the forecast and warning work at Washington:

| | | |
|----------------------------------|------------|-----------|
| One chief of division..... | \$2,000.00 | |
| One clerk..... | 1,800.00 | |
| One clerk..... | 1,600.00 | |
| Two clerks, at \$1,400 each..... | 2,800.00 | |
| Two clerks, at \$1,200 each..... | 2,400.00 | |
| Two clerks, at \$1,000 each..... | 2,000.00 | |
| One messenger boy..... | 600.00 | |
| One messenger boy..... | 450.00 | |
| | | 13,650.00 |

Total..... \$227,160.00

*Paid from "Salaries, station employees, Weather Bureau"..... 22,150.00

**Paid from "Salaries, Division of Accounts and Disbursements"..... 2,500.00

24,650.00

Total amount estimated for statutory salaries, 1909..... 202,510.00

The increases in 1909 are as follows:

| | |
|---|----------|
| One clerk of class three (ocean meteorology) | 1,600.00 |
| One clerk of class one (Climatological Division)..... | 1,200.00 |
| One clerk, at \$1,000 (Accounts Division)..... | 1,000.00 |
| One skilled mechanic, at \$1,000 (mechanical work)..... | 1,000.00 |
| One watchman, at \$720 (captain of the watch)..... | 720.00 |

WEATHER BUREAU—Continued.

[Fuel, lights, and repairs, Weather Bureau—\$10,000.]

| | |
|---|------------|
| Fuel..... | \$3,480.00 |
| Gas..... | 312.00 |
| Hauling ashes, rubbish, etc..... | 116.00 |
| Rent of fire-alarm boxes..... | 50.00 |
| Repairs to buildings and care of grounds..... | 6,042.00 |

| | |
|---|-------------|
| Total estimate of appropriation for 1909..... | \$10,000.00 |
| Amount of above appropriation for fiscal year 1907..... | 10,000.00 |
| Amount of above appropriation for fiscal year 1908 (no increase)..... | 10,000.00 |
| Amount estimated for fiscal year 1909 (no increase)..... | 10,000.00 |

[Contingent expenses, Weather Bureau—\$12,000.]

| | |
|---|------------|
| Stationery, blank books, etc..... | \$1,400.00 |
| Miscellaneous supplies..... | 5,500.00 |
| Furniture, carpets, etc..... | 3,000.00 |
| Freight and express..... | 235.00 |
| Rent of telephones, etc..... | 550.00 |
| Apparatus, instruments, laboratory material, etc..... | 200.00 |
| Forage..... | 200.00 |
| Purchase of horses (1)..... | 200.00 |
| Repairs to wagons, harness, etc..... | 400.00 |
| Advertising..... | 50.00 |
| Ice..... | 200.00 |
| Washing towels..... | 65.00 |

| | |
|---|-----------|
| Total estimate of appropriation for 1909..... | 12,000.00 |
| Amount of above appropriation for fiscal year 1907..... | 10,000.00 |
| Amount of above appropriation for fiscal year 1908 (no increase)..... | 10,000.00 |
| Amount estimated for fiscal year 1909 (increase \$2,000).... | 12,000.00 |

The sum of \$2,000 additional is estimated for 1909 because the sum now appropriated is insufficient to meet the requirements of the office. This appropriation has remained the same for a number of years, but the large increase in the cost of supplies of all kinds has rendered the amount inadequate.

[Salaries, station employees, Weather Bureau—\$617,050.]

(In Washington.)

| | |
|---|-------------------|
| Six professors of meteorology, at \$3,000 each... | \$18,000.00 |
| One Chief, Climatological Division, at \$2,750... | 2,750.00 |
| One observer..... | 1,400.00 |
| | <hr/> \$22,150.00 |

(Out of Washington.)

| | |
|--|------------|
| Two professors of meteorology, at \$3,000 each.. | 6,000.00 |
| One professor of meteorological physics, at \$3,000..... | 3,000.00 |
| Two inspectors, at \$2,500 each..... | 5,000.00 |
| Six district forecasters, at \$2,400 each..... | 14,400.00 |
| One research director, at \$2,000..... | 2,000.00 |
| Five local forecasters, at \$2,000 each..... | 10,000.00 |
| Three section directors, at \$2,000 each..... | 6,000.00 |
| Five local forecasters, at \$1,800 each..... | 9,000.00 |
| Fourteen section directors, at \$1,800 each..... | 25,200.00 |
| Nine section directors, at \$1,600 each..... | 14,400.00 |
| Twelve local forecasters, at \$1,600 each..... | 19,200.00 |
| Ten section directors, at \$1,400 each..... | 14,000.00 |
| One research observer, at \$1,800..... | 1,800.00 |
| Two research observers, at \$1,400 each..... | 2,800.00 |
| Thirty-five local forecasters, at \$1,400 each..... | 49,000.00 |
| Eighty-seven observers, at \$1,200 each..... | 104,400.00 |
| One skilled mechanic, at \$1,200..... | 1,200.00 |
| Twenty printers, at \$1,200 each..... | 24,000.00 |
| Ninety assistant observers, at \$1,000 each..... | 90,000.00 |

WEATHER BUREAU—Continued.

| | | |
|---|-------------|---------------------|
| Twenty printers, at \$1,000 each..... | \$20,000.00 | |
| One operator, at \$1,000..... | 1,000.00 | |
| One expert in vessel reporting, at \$840..... | 840.00 | |
| Eighty assistant observers, at \$840 each..... | 67,200.00 | |
| Forty assistant observers, at \$720 each..... | 28,800.00 | |
| Nine repairmen, at \$720 each..... | 6,480.00 | |
| One unclassified laborer..... | 600.00 | |
| Two unclassified laborers, at \$480 each..... | 960.00 | |
| One unskilled laborer..... | 360.00 | |
| Three messengers, at \$720 each..... | 2,160.00 | |
| One repairman, at \$600..... | 600.00 | |
| Forty-five messengers, at \$600 each..... | 27,000.00 | |
| Sixty messengers, at \$480 each..... | 28,800.00 | |
| Ten messengers, at \$360 each..... | 3,600.00 | |
| Three station agents, at \$300 each..... | 900.00 | |
| Six student assistants, at \$300 each..... | 1,800.00 | |
| Miscellaneous employees (temporary and unassigned)..... | 2,400.00 | |
| | | <u>\$594,900.00</u> |

| | | |
|--|--------------|--------------|
| Total estimate of appropriation for 1909..... | | \$617,050.00 |
| Amount of above appropriation for fiscal year 1907..... | \$541,550.00 | |
| Amount of above appropriation for fiscal year 1908 (increase, \$10,000)..... | 551,550.00 | |
| Amount estimated for fiscal year 1909 (increase, \$65,500)... | 617,050.00 | |

The employees on duty in Washington who are paid from the above-named appropriation are assigned to the various divisions and sections as indicated on sheets.

The employees outside of Washington who are paid from the same appropriation are assigned to the 206 stations located throughout the United States, the West Indies, and in the Hawaiian Islands. The number of employees at each station varies from 1 to 14, the number being changed as the exigencies of the service at the various stations may demand. The character of the work performed by them is indicated by their titles, and they are engaged in the prosecution of the various lines of work described under projects.

The sum of \$65,500 additional is estimated for 1909 for the following purposes:

For promotion of assistant observers after one year of service, who have an initial compensation of \$720 per annum, \$3,000.

For promotion of messenger boys, after one year of service, from an initial salary of \$360 to \$480 per annum, \$12,000.

For a reserve force of about fourteen assistant observers who shall receive three to six months' instruction at Washington, D. C., and be available for station assignment to fill vacancies caused by the exigencies of the service, \$15,500.

For about twelve additional printers for work in connection with the issuing of weather maps in printed form instead of by the present unsatisfactory duplicating process, \$12,000.

For salaries of employees engaged in the evaporation work in connection with the Salton Sea problem, \$13,000.

For pay of employees engaged in seismological observations to be made throughout the United States, \$10,000.

[General expenses, Weather Bureau—\$687,500.]

| | | |
|---|-------------|-------------------|
| Stationery..... | \$45,000.00 | |
| Miscellaneous supplies, services, etc..... | 105,000.00 | |
| Furniture..... | 14,000.00 | |
| Fuel..... | 8,000.00 | |
| Freight..... | 8,500.00 | |
| Express..... | 1,000.00 | |
| Telegraphing, telephoning, and cabling circuit reports..... | \$100,000 | |
| Forecasts, warnings, observations, etc..... | 145,000 | |
| | | <u>245,000.00</u> |

WEATHER BUREAU—Continued.

| | |
|---|-------------|
| Rent of telephones..... | \$18,000.00 |
| Rent of offices, etc..... | 75,000.00 |
| Gas and electricity..... | 6,000.00 |
| Traveling, and station and field expenses..... | 26,000.00 |
| Instruments, apparatus, etc..... | 27,000.00 |
| Maintenance and repair of telegraph lines..... | 5,000.00 |
| Buildings—For the completion of the unfinished laboratory building, and the unfinished cottage and office building, at Mount Weather, Va., including all necessary labor, materials, plans, specifications, and other expenses..... | 15,000.00 |
| Repairs to buildings..... | 7,650.00 |
| Printing office (in Washington)..... | 18,000.00 |
| Pay for river and rainfall observations..... | 30,000.00 |
| Pay for snow and ice observations..... | 150.00 |
| Pay for climatological and crop observations..... | 15,000.00 |
| Pay for storm and hurricane displaymen..... | 18,000.00 |
| Pay for cranberry observations..... | 200.00 |

Total estimate of appropriation for 1909..... \$687,500.00

Amount of above appropriation for fiscal year 1907..... \$630,000.00

Amount of above appropriation for fiscal year 1908 (increase, \$15,000)..... 645,000.00

Amount estimated for fiscal year 1909 (increase, \$42,500).... 687,500.00

The sum of \$42,500 additional is estimated for 1909 for the following purposes:

An increase of \$27,500 to cover the cost of supplies, instruments, and other necessary expenses for the evaporation and seismological investigations described under projects Nos. 14 and 15.

An increase of \$15,000 for the completion of the unfinished laboratory building and the unfinished cottage and office building at Mount Weather, Va., including all necessary labor, materials, plans, specifications, and other expenses.

NOTE.—An estimate of appropriation for \$50,000 will also be made for the erection of a main observatory at Mount Weather, Va., including all necessary labor, materials, plans, specifications, and other expenses, to replace the main observatory building destroyed by fire October 23, 1907.

Total of all appropriations estimated for the Weather Bureau for the fiscal year 1909..... 1,529,060.00

BUILDINGS.

No appropriation made for buildings for the fiscal year 1908.

No estimate made for an appropriation for buildings for the fiscal year 1909, but an estimate of \$15,000 has been inserted in the appropriation for general expenses for completing the erection of two buildings at Mount Weather, Va.

PROJECTS.

No. 1. Administration (in Washington)—Willis L. Moore, Chief of Bureau, in charge:

| | |
|---|--------------|
| Salaries in Washington..... | \$127,680.00 |
| Traveling and other field expenses..... | 800.00 |
| Fuel, lights, repairs, supplies, etc..... | 22,000.00 |

150,480.00

No. 2. The Monthly Weather Review—Cleveland Abbe, professor of meteorology (Washington), editor:

| | |
|---|------------|
| Salaries..... | \$4,200.00 |
| Traveling and field expenses..... | 25.00 |
| Paper, composition, presswork, etc..... | 12,500.00 |

16,725.00

WEATHER BUREAU—Continued.

| | |
|--|----------------|
| No. 3. Forecast work—Edward B. Garriott, professor of meteorology (Washington), in charge: | |
| Salaries..... | \$400, 000. 00 |
| Traveling and field expenses..... | 8, 500. 00 |
| Miscellaneous supplies and expenses..... | 362, 050. 00 |
| | <hr/> |
| | 770, 550. 00 |
| No. 4. River and flood service—Harry A. Frankenfield, professor of meteorology (Washington), in charge: | |
| Salaries..... | \$70, 000. 00 |
| Traveling and field expenses..... | 1, 000. 00 |
| Miscellaneous supplies and expenses..... | 35, 000. 00 |
| | <hr/> |
| | 106, 000. 00 |
| No. 5. Cranberry marsh investigations—Henry J. Cox, professor of meteorology (Chicago), in charge: | |
| Salaries..... | \$700. 00 |
| Traveling and field expenses..... | 300. 00 |
| Miscellaneous supplies and expenses..... | 250. 00 |
| | <hr/> |
| | 1, 250. 00 |
| No. 6. Climatological and crop work—James Berry, chief of division (Washington), in charge: | |
| Salaries..... | \$120, 000. 00 |
| Traveling and field expenses..... | 2, 400. 00 |
| Miscellaneous supplies and expenses..... | 92, 500. 00 |
| | <hr/> |
| | 214, 900. 00 |
| No. 7. Ocean meteorology—Henry L. Heiskell, chief of division (Washington), in charge: | |
| Salaries..... | \$16, 500. 00 |
| Traveling and field expenses..... | 250. 00 |
| Miscellaneous supplies and expenses..... | 300. 00 |
| | <hr/> |
| | 17, 050. 00 |
| No. 8. Research observatory—William J. Humphreys, professor of meteorological physics (Mount Weather, Va.), in charge: | |
| Salaries..... | \$15, 000. 00 |
| Traveling and field expenses..... | 425. 00 |
| Miscellaneous supplies, apparatus, etc..... | 15, 000. 00 |
| | <hr/> |
| | 30, 425. 00 |
| No. 9. Instruments—Charles F. Marvin, professor of meteorology (Washington) in charge: | |
| Salaries..... | \$24, 500. 00 |
| Traveling and field expenses..... | 150. 00 |
| Miscellaneous supplies and expenses..... | 15, 000. 00 |
| | <hr/> |
| | 39, 650. 00 |
| No. 10. Inspection of stations—Norman B. Conger, inspector (Detroit, Mich.); Henry B. Hersey, inspector (Milwaukee, Wis.): | |
| Salaries..... | \$5, 000. 00 |
| Traveling and field expenses..... | 1, 600. 00 |
| | <hr/> |
| | 6, 600. 00 |
| No. 11. Telegraph service—Jesse H. Robinson, chief of division (Washington), in charge: | |
| Salaries..... | \$18, 250. 00 |
| Traveling and field expenses..... | 600. 00 |
| Miscellaneous supplies and expenses..... | 680. 00 |
| | <hr/> |
| | 19, 530. 00 |

WEATHER BUREAU—Continued.

No. 12. Records—Frank H. Bigelow, professor of meteorology (Washington) in charge:

| | |
|--|---------------|
| Salaries..... | \$75, 000. 00 |
| Traveling and field expenses..... | 400. 00 |
| Miscellaneous supplies and expenses..... | 15, 000. 00 |
| | <hr/> |
| | 90, 400. 00 |

No. 13. Buildings—Edgar B. Calvert, assistant chief of division of accounts (Washington) in charge:

For the completion of the unfinished physical laboratory building and the unfinished cottage and office building at Mount Weather, Va. \$15, 000. 00

No. 14. Evaporation Researches—Frank H. Bigelow, professor of meteorology (Washington) in charge:

| | |
|--|---------------|
| Salaries..... | \$13, 000. 00 |
| Traveling and field expenses..... | 2, 500. 00 |
| Miscellaneous supplies and expenses..... | 9, 000. 00 |
| | <hr/> |
| | 24, 500. 00 |

The overflow of the Colorado River through the irrigation of ditches in the Imperial Valley filled the old Salton basin, 285 feet below sea level, to the depth of 80 feet, before it was brought under control by levees and headings.

The Salton Sea now presents a surface of 440 square miles to rapid evaporation in a very dry climate. The rate of recovery of the valuable submerged land is of vital importance. Engineers do not know how to estimate at all accurately the probable rate of evaporation.

The entire subject needs careful study, and the Salton Sea affords a unique opportunity to undertake to solve the evaporation problem, and this solution will be invaluable for future work in the arid and subarid regions of the country, especially in constructing reservoirs for irrigation purposes.

The evaporation and the rainfall are correlative factors in the supply of water for waterways and for farming generally, but meteorologists have heretofore been limited to the collection of rainfall data only, and there is a lack of knowledge regarding the losses by evaporation. It is one of the gaps in practical science greatly needing to be filled.

No. 15. Seismological Investigations—Charles F. Marvin, professor of meteorology (Washington) in charge:

| | |
|--|---------------|
| Salaries..... | \$10, 000. 00 |
| Traveling and field expenses..... | 1, 000. 00 |
| Miscellaneous supplies and expenses..... | 15, 000. 00 |
| | <hr/> |
| | 26, 000. 00 |

Exact knowledge of the character and magnitude of earth motions, known as earthquakes, is of vital importance to architects and the great structural engineers whose business it is to design and erect the enormous structures now so numerous in all our large cities. Any one of these modern buildings often houses a small city full of people, whose safety depends in such a great degree upon the power of the structure to resist the forces that may assail it. Earthquake-proof construction must be required, especially in great structures, even in regions which may seem to be immune, for it may be only a question of time when some readjustment of the earth's strata under long accumulating stresses may occur in seemingly the most stable regions, and an earthquake of greater or less severity be precipitated thereby. The data required by engineers and architects to enable them to properly handle the problems presented to them are, at present, very meager, vague, and indefinite.

Up to the present time no department of the Government has given special attention to the study of seismology, and especially to the establishment of stations or observatories for the registration of earthquake motions. That systematic study of this kind should be taken up by the Government has been the subject of special consideration by a committee of the American Association for the Advancement of Science, and it has also been informally considered by representatives from the Geological Survey, the Coast and Geodetic Survey, the Smithsonian Institution, the Weather Bureau, and the Carnegie Institution. The resolutions resulting from the action of this committee were published in "Science" for May 24, 1907, and, among other

WEATHER BUREAU—Continued.

things, recommends that the Government take up systematic seismic observations. It is the opinion of the Geological Survey, the Coast and Geodetic Survey, and the Carnegie Institution that the Weather Bureau, in view of its widely distributed stations manned with trained observers, should be equipped with the necessary instruments and undertake this important line of work at selected stations.

Total appropriations for the Weather Bureau for the fiscal year 1907.. \$1,439,240.00
 Total appropriations for fiscal year 1908 (decrease of \$25,700)..... 1,413,540.00
 Total estimate of appropriations for 1909 (increase of \$115,520)..... 1,529,060.00

BUREAU OF ANIMAL INDUSTRY.

[Salaries, Bureau of Animal Industry—\$84,210.]

| | |
|--|------------|
| One chief of bureau..... | \$5,000.00 |
| One chief clerk (increase of \$250 submitted)..... | 2,250.00 |
| One editor and compiler (increase of \$100 submitted and title changed)..... | 2,100.00 |
| One clerk..... | 2,000.00 |
| Three clerks, class 4..... | 5,400.00 |
| Five clerks, class 3..... | 8,000.00 |
| Thirteen clerks, class 2..... | 18,200.00 |
| Thirteen clerks, class 1..... | 15,600.00 |
| Eight clerks, at \$1,000 each..... | 8,000.00 |
| Three clerks, at \$900 each (increase of 1 submitted)..... | 2,700.00 |
| Two clerks, at \$840 each..... | 1,680.00 |
| Three clerks, at \$720 each..... | 2,160.00 |
| NOTE.—Two clerks, at \$600 each, dropped. | |
| One mechanic..... | 1,200.00 |
| One messenger and custodian..... | 1,000.00 |
| One carpenter..... | 1,100.00 |
| One messenger..... | 840.00 |
| Three messengers, at \$720 each (decrease of 1 submitted) .. | 2,160.00 |
| One skilled laborer..... | 840.00 |
| One skilled laborer (decrease of 1 submitted)..... | 720.00 |
| Two skilled laborers, at \$600 each..... | 1,200.00 |
| One skilled laborer..... | 660.00 |

NOTE.—Two skilled laborers at \$480 each and 1 fireman at \$720 dropped.

| | |
|----------------------|----------|
| One illustrator..... | 1,400.00 |
|----------------------|----------|

Total amount estimated.....

\$84,210.00

NOTE.—The salary of the chief clerk has been increased from \$2,000 to \$2,250, one editor from \$2,000 to \$2,100, and the words "and compiler" have been added to the title of the latter. One clerk at \$2,000 and one clerk at \$900 have been added, and two clerks at \$600, one messenger at \$720, one skilled laborer at \$720, two skilled laborers at \$480 each, and one fireman at \$720 have been dropped. Net decrease, \$1,070.

| | |
|---|-------------|
| Amount of above appropriation for fiscal year 1907..... | \$84,780.00 |
|---|-------------|

| | |
|---|-----------|
| Amount of above appropriation for fiscal year 1908 (increase of \$500)..... | 85,280.00 |
|---|-----------|

| | |
|--|-----------|
| Amount estimated for fiscal year 1909 (decrease of \$1,070) .. | 84,210.00 |
|--|-----------|

The above force will perform the following duties:

Administration:

| | |
|--------------------------------|------------|
| 1 chief of bureau..... | \$5,000.00 |
| 1 chief clerk..... | 2,250.00 |
| 1 clerk..... | 2,000.00 |
| 3 clerks, class 4..... | 5,400.00 |
| 2 clerks, class 3..... | 3,200.00 |
| 8 clerks, class 2..... | 11,200.00 |
| 6 clerks, class 1..... | 7,200.00 |
| 3 clerks, at \$1,000 each..... | 3,000.00 |
| 1 clerk..... | 900.00 |
| 1 clerk..... | 840.00 |
| 1 mechanic..... | 1,200.00 |

BUREAU OF ANIMAL INDUSTRY—Continued.

Administration—Continued.

| | | |
|--------------------------------|------------|-------------|
| 1 messenger and custodian..... | \$1,000.00 | |
| 1 carpenter..... | 1,100.00 | |
| 1 messenger..... | 840.00 | |
| 1 messenger..... | 720.00 | |
| 1 skilled laborer..... | 840.00 | |
| | | \$46,690.00 |

Inspection division:

| | | |
|------------------------|------------|----------|
| 2 clerks, class 1..... | \$2,400.00 | |
| 1 clerk..... | 1,000.00 | |
| | | 3,400.00 |

Dairy division:

| | | |
|--------------------------------|------------|----------|
| 1 clerk, class 3..... | \$1,600.00 | |
| 1 clerk, class 2..... | 1,400.00 | |
| 2 clerks, class 1..... | 2,400.00 | |
| 2 clerks, at \$1,000 each..... | 2,000.00 | |
| 2 clerks, at \$720 each..... | 1,440.00 | |
| | | 8,840.00 |

Quarantine division:

| | | |
|-----------------------|--|----------|
| 1 clerk, class 1..... | | 1,200.00 |
|-----------------------|--|----------|

Biochemic Division:

| | | |
|-----------------------|------------|----------|
| 1 clerk, class 1..... | \$1,200.00 | |
| 1 clerk..... | 900.00 | |
| 1 messenger..... | 720.00 | |
| | | 2,820.00 |

Pathological division:

| | | |
|--|------------|----------|
| 1 clerk, class 2..... | \$1,400.00 | |
| 1 clerk..... | 1,000.00 | |
| 1 clerk..... | 840.00 | |
| 1 clerk..... | 720.00 | |
| 1 skilled laborer..... | 720.00 | |
| 2 skilled laborers, at \$600 each..... | 1,200.00 | |
| 1 skilled laborer..... | 660.00 | |
| 1 illustrator..... | 1,400.00 | |
| | | 7,940.00 |

Zoological division:

| | | |
|-----------------------|------------|----------|
| 1 clerk, class 2..... | \$1,400.00 | |
| 1 clerk..... | 1,000.00 | |
| 1 messenger..... | 720.00 | |
| | | 3,120.00 |

Animal Husbandry division:

| | | |
|-----------------------|------------|----------|
| 1 clerk, class 2..... | \$1,400.00 | |
| 1 clerk, class 1..... | 1,200.00 | |
| 1 clerk..... | 900.00 | |
| | | 3,500.00 |

Editorial office:

| | | |
|----------------------------|------------|----------|
| 1 editor and compiler..... | \$2,100.00 | |
| 2 clerks, class 3..... | 3,200.00 | |
| 1 clerk, class 2..... | 1,400.00 | |
| | | 6,700.00 |

| | | |
|------------|--|-------------|
| Total..... | | \$84,210.00 |
|------------|--|-------------|

[General expenses, Bureau of Animal Industry, 1909—\$997,200.]

Salaries:

| | |
|------------------------|--------------|
| In Washington..... | \$124,700.00 |
| Out of Washington..... | 500,000.00 |

| | |
|-------------------------|------------|
| Traveling expenses..... | 242,200.00 |
|-------------------------|------------|

| | |
|-----------------|----------|
| Stationery..... | 6,000.00 |
|-----------------|----------|

| | |
|----------------|-----------|
| Furniture..... | 10,000.00 |
|----------------|-----------|

| | |
|-----------|----------|
| Rent..... | 6,000.00 |
|-----------|----------|

| | |
|--|------------|
| Miscellaneous expenses, including fuel, freight, express, telegraph, telephone, lights, experimental animals, experimental dairy products, forage, lumber, livery service, laboratory apparatus, etc..... | 108,300.00 |
|--|------------|

| | |
|---|--------------|
| Total estimate of appropriation for 1909..... | \$997,200.00 |
|---|--------------|

BUREAU OF ANIMAL INDUSTRY—Continued.

| | |
|--|----------------|
| Amount of above appropriation for fiscal year 1907..... | \$862, 200. 00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$85,000)..... | 947, 200. 00 |
| Amount estimated for fiscal year 1909 (increase of \$50,000)..< | 997, 200. 00 |

PROJECTS.

| | |
|--|----------------|
| Eradication of scabies in sheep: | |
| Salaries..... | \$220, 000. 00 |
| Travel..... | 123, 000. 00 |
| Miscellaneous..... | 7, 000. 00 |
| | 350, 000. 00 |
| Eradication of scabies in cattle: | |
| Salaries..... | \$66, 000. 00 |
| Travel..... | 27, 000. 00 |
| Miscellaneous..... | 2, 000. 00 |
| | 95, 000. 00 |
| Inspection of southern cattle: | |
| Salaries..... | \$45, 000. 00 |
| Travel..... | 15, 000. 00 |
| Miscellaneous..... | 5, 000. 00 |
| | 65, 000. 00 |
| Supervision of transportation of live stock and inspection of vessels: | |
| Salaries..... | \$34, 300. 00 |
| Travel..... | 500. 00 |
| Miscellaneous..... | 200. 00 |
| | 35, 000. 00 |
| Inspection and quarantine of imported animals: | |
| Salaries..... | \$23, 000. 00 |
| Travel..... | 3, 500. 00 |
| Miscellaneous..... | 3, 500. 00 |
| | 30, 000. 00 |
| Inspection work relative to existence of contagious diseases, and tuberculin and mallein testing of animals: | |
| Salaries..... | \$10, 000. 00 |
| Travel..... | 8, 000. 00 |
| Miscellaneous..... | 2, 000. 00 |
| | 20, 000. 00 |
| Investigations and experiments in dairy industry: | |
| Salaries..... | \$63, 000. 00 |
| Travel..... | 18, 000. 00 |
| Miscellaneous..... | 10, 000. 00 |
| | 91, 000. 00 |
| Cooperative investigations of the dairy industry in the Southern States: | |
| Salaries..... | \$17, 000. 00 |
| Travel..... | 10, 000. 00 |
| Miscellaneous..... | 1, 000. 00 |
| | 28, 000. 00 |
| Inspection of renovated butter factories and markets: | |
| Salaries..... | \$8, 500. 00 |
| Travel..... | 6, 500. 00 |
| Miscellaneous..... | 1, 000. 00 |
| | 16, 000. 00 |
| Investigations and experiments in animal husbandry: | |
| Salaries..... | \$20, 000. 00 |
| Travel..... | 13, 000. 00 |
| Miscellaneous..... | 2, 000. 00 |
| | 35, 000. 00 |
| Cooperative experiments in animal breeding and feeding: | |
| Salaries..... | \$14, 100. 00 |
| Travel..... | 2, 300. 00 |
| Miscellaneous..... | 33, 600. 00 |
| | 50, 000. 00 |

BUREAU OF ANIMAL INDUSTRY—Continued.

Scientific investigations in diseases of animals:

| | | |
|--------------------|-------------|--------------|
| Salaries..... | \$70,000.00 | |
| Travel..... | 2,000.00 | |
| Miscellaneous..... | 38,000.00 | |
| | | \$110,000.00 |

Cooperative experiments and investigations in diseases of domestic animals in the State of Minnesota:

| | | |
|--------------------|------------|----------|
| Salaries..... | \$1,800.00 | |
| Travel..... | 200.00 | |
| Miscellaneous..... | 1,000.00 | |
| | | 3,000.00 |

General administrative work:

| | | |
|--------------------|-------------|-----------|
| Salaries..... | \$20,000.00 | |
| Travel..... | 1,200.00 | |
| Miscellaneous..... | 23,000.00 | |
| | | 44,200.00 |

Investigations relating to conditions affecting the wholesomeness of milk:

| | | |
|--------------------|-------------|-----------|
| Salaries..... | \$12,000.00 | |
| Travel..... | 12,000.00 | |
| Miscellaneous..... | 1,000.00 | |
| | | 25,000.00 |

The prevalence of tuberculosis among dairy cattle, and improper and careless methods in producing and handling milk, have a direct bearing upon the public health and are of such importance that a thorough investigation should be made of the conditions surrounding the production, handling, and transportation of milk.

[Meat inspection, Bureau of Animal Industry, 1909—\$3,000,000.]

Salaries:

| | | |
|--|--------------|--|
| In Washington..... | \$100,000.00 | |
| Out of Washington..... | 2,700,000.00 | |
| Traveling expenses..... | 50,000.00 | |
| Stationery..... | 10,000.00 | |
| Furniture..... | 10,000.00 | |
| Rent..... | 20,000.00 | |
| Meat-inspection stamps, certificates, tags, hog rings, seals, disks, sealing presses, brands..... | 40,000.00 | |
| Miscellaneous supplies and services, including freight, express, telegraph, telephone, gas and electricity, livery, laboratory apparatus, etc..... | 70,000.00 | |

| | |
|---|----------------|
| Total estimate of appropriation for 1909..... | \$3,000,000.00 |
| Amount of above appropriation for fiscal year 1907 (permanent appropriation)..... | \$3,000,000.00 |
| Amount of above appropriation for fiscal year 1908 (permanent appropriation)..... | 3,000,000.00 |
| Amount estimated for fiscal year 1909 (permanent appropriation)..... | 3,000,000.00 |

[Eradicating cattle ticks, Bureau of Animal Industry, 1909—\$150,000.]

| | | |
|--|--------------|------------|
| Salaries..... | \$100,000.00 | |
| Traveling expenses..... | 38,000.00 | |
| Miscellaneous supplies and services, including stationery, furniture, freight, telegraph, telephone, rent, apparatus, livery, etc..... | 12,000.00 | |
| | | 150,000.00 |

| | |
|--|------------|
| Amount of above appropriation for fiscal year 1907, including \$14,188.10 of immediately available appropriation expended prior to June 30, 1907..... | 96,688.10 |
| Amount of above appropriation for fiscal year 1908, including balance of \$10,811.90 on June 30, 1907, of immediately available appropriation (increase of \$39,123.80)..... | 135,811.90 |

BUREAU OF ANIMAL INDUSTRY—Continued.

| | |
|--|-----------------------|
| Amount estimated for fiscal year 1909 (increase of \$14,188.10)..... | \$150,000.00 |
| Total amount estimated for all appropriations for Bureau of Animal Industry for the fiscal year 1909 | <u>\$4,231,410.00</u> |
| Total appropriations for the Bureau of Animal Industry for the fiscal year 1907, \$4,054,480 (less \$10,811.90 available in fiscal year 1908)... | 4,043,668.10 |
| Total appropriations for the fiscal year 1908, \$4,182,480 (less \$14,188.10 expended in fiscal year 1907) (increase of \$124,623.80)..... | 4,168,291.90 |
| Total estimate of appropriations for fiscal year 1909 (increase of \$63,118.10)..... | <u>4,231,410.00</u> |

BUREAU OF PLANT INDUSTRY.

[Salaries, Bureau of Plant Industry—\$187,410.]

| | |
|---|------------|
| One plant physiologist and pathologist, who shall be Chief of Bureau..... | \$5,000.00 |
| One chief clerk..... | 2,250.00 |
| One editor..... | 2,000.00 |
| One officer in charge of records | 2,000.00 |
| One superintendent of gardens and grounds..... | 1,800.00 |
| Four clerks, class 4..... | 7,200.00 |
| Eight clerks, class 3..... | 12,800.00 |
| Thirteen clerks, class 2..... | 18,200.00 |
| Twenty-nine clerks, class 1..... | 34,800.00 |
| One seed clerk and superintendent..... | 1,200.00 |
| One clerk or artist..... | 1,200.00 |
| One clerk or artist (change of title submitted)..... | 840.00 |
| One clerk..... | 1,080.00 |
| Sixteen clerks, at \$1,000 each..... | 16,000.00 |
| Six clerks, at \$900 each..... | 5,400.00 |
| Twelve clerks, at \$840 each..... | 10,080.00 |
| One clerk..... | 800.00 |
| Twelve clerks, at \$720 each..... | 8,640.00 |
| Four clerks, at \$660 each..... | 2,640.00 |
| Four clerks, at \$600 each..... | 2,400.00 |

NOTE.—One clerk or messenger, at \$480, dropped.

| | |
|---|----------|
| One photographer or clerk..... | 900.00 |
| One assistant photographer..... | 600.00 |
| One illustrator or clerk..... | 900.00 |
| One carpenter..... | 900.00 |
| One carpenter..... | 840.00 |
| Two gardeners or assistants, at \$1,000 each..... | 2,000.00 |
| Six gardeners, at \$900 each..... | 5,400.00 |
| Two gardeners, at \$840 each..... | 1,680.00 |
| Four gardeners at \$780 each..... | 3,120.00 |
| Five gardeners, at \$720 each (increase of 3 submitted in lieu of 3 firemen, at \$720 each, dropped)..... | 3,600.00 |
| Three gardeners, at \$660 each..... | 1,980.00 |
| One gardener..... | 600.00 |
| One painter..... | 840.00 |
| Two plumbers, at \$840 each..... | 1,680.00 |

NOTE.—Three firemen, at \$720 each, dropped.

| | |
|--|----------|
| Two clerks or messengers, at \$840 each..... | 1,680.00 |
| One skilled laborer..... | 900.00 |
| Nine skilled laborers, at \$720 each (increase of 1, submitted in lieu of 1 watchman, at \$720, dropped)..... | 6,480.00 |
| Three skilled laborers, at \$660 each..... | 1,980.00 |
| Eight skilled laborers, at \$600 each (increase of 1, submitted in lieu of 1 watchman, at \$600, dropped)..... | 4,800.00 |
| Three skilled laborers, at \$540 each..... | 1,620.00 |
| One messenger..... | 660.00 |
| Three messengers, at \$600 each..... | 1,800.00 |

NOTE.—Three watchmen, at \$720 each, and 2 watchmen, at \$600 each, dropped.

BUREAU OF PLANT INDUSTRY—Continued.

| | |
|---|-------------|
| Ten skilled laborers, messengers, or messenger boys, at \$480 each (increase of 1, submitted in lieu of 1 clerk or messenger, at \$480, dropped)..... | \$4, 800.00 |
| Two messenger boys, at \$360 each..... | 720.00 |
| Two messenger boys, at \$300 each..... | 600.00 |

Total amount estimated..... \$187, 410.00

NOTE.—The title of 1 artist has been changed to 1 artist or clerk. Three gardeners, at \$720 each; 1 skilled laborer, at \$720; 1 skilled laborer, at \$600; and 1 skilled laborer, messenger, or messenger boy, at \$480, have been added. One clerk or messenger, at \$480; 3 firemen, at \$720 each; 3 watchmen, at \$720 each, and 2 watchmen, at \$600 each, have been dropped. Net decrease, \$2,040.

| | |
|--|---------------|
| Amount of above appropriation for fiscal year 1907..... | \$163, 060.00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$26,390)..... | 189, 450.00 |
| Amount estimated for fiscal year 1909 (decrease of \$2,040)..... | 187, 410.00 |

[General expenses, Bureau of Plant Industry, 1909—\$666,266.]

Salaries:

| | |
|--|---------------|
| In Washington..... | \$275, 000 |
| Out of Washington..... | 150, 000 |
| | <hr/> |
| Traveling and station and field expenses..... | \$425, 000.00 |
| Miscellaneous supplies..... | 141, 966.00 |
| Stationery..... | 50, 000.00 |
| Furniture..... | 7, 500.00 |
| Furniture..... | 6, 000.00 |
| Apparatus, instruments, and laboratory material..... | 25, 000.00 |
| Rent..... | 3, 500.00 |
| Gas and electricity..... | 2, 000.00 |
| Express..... | 2, 500.00 |
| Freight..... | 1, 000.00 |
| Fuel..... | 500.00 |
| Telegraph..... | 800.00 |
| Telephone..... | 500.00 |

| | |
|--|---------------|
| Total..... | \$666, 266.00 |
| Amount of above appropriation for fiscal year 1907..... | \$495, 260.00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$89,520)..... | 584, 780.00 |
| Amount estimated for fiscal year 1909 (increase of \$81,486)..... | 666, 266.00 |

[Grain investigations, 1909—\$65,000.]

Salaries:

| | |
|--|--------------|
| In Washington..... | \$8, 000 |
| Out of Washington..... | 35, 500 |
| | <hr/> |
| Traveling and station and field expenses..... | \$43, 500.00 |
| Miscellaneous supplies..... | 10, 500.00 |
| Stationery..... | 2, 000.00 |
| Stationery..... | 500.00 |
| Furniture..... | 1, 000.00 |
| Apparatus, instruments, and laboratory material..... | 5, 000.00 |
| Rent..... | 2, 000.00 |
| Gas and electricity..... | 300.00 |
| Express..... | 100.00 |
| Freight..... | 50.00 |
| Telegraph and telephone..... | 50.00 |

| | |
|--|--------------|
| Total..... | \$65, 000.00 |
| Amount of above appropriation for fiscal year 1907..... | \$15, 000 |
| Amount of above appropriation for fiscal year 1908 (increase of \$25,000)..... | 40, 000 |
| Amount estimated for fiscal year 1909 (increase of \$25,000)..... | 65, 000 |

BUREAU OF PLANT INDUSTRY—Continued.

[Purchase and distribution of valuable seeds, 1909—\$249,000.]

Salaries:

| | |
|------------------------|-------------|
| In Washington..... | \$55,000.00 |
| Out of Washington..... | 15,660.00 |

| | |
|--|-------------|
| Traveling and station and field expenses..... | \$70,000.00 |
| Miscellaneous supplies..... | 20,000.00 |
| Stationery..... | 144,325.00 |
| Furniture..... | 2,000.00 |
| Apparatus, instruments, and laboratory material..... | 1,500.00 |
| Rent..... | 1,500.00 |
| Gas and electricity..... | 4,000.00 |
| Express..... | 300.00 |
| Freight..... | 1,500.00 |
| Telegraph..... | 3,500.00 |
| Telephone..... | 300.00 |
| | 75.00 |

| | | |
|---|--------------|--------------|
| Total..... | | \$249,000.00 |
| Amount of above appropriation for fiscal year 1907..... | \$242,920.00 | |
| Amount of above appropriation for fiscal year 1908 (decrease of \$4,920)..... | 238,000.00 | |
| Amount estimated for fiscal year 1909 (increase of \$11,000)..... | 249,000.00 | |

[Cotton-boll weevil investigations, 1909—\$150,000.]

Salaries:

| | |
|------------------------|-------------|
| In Washington..... | \$25,000.00 |
| Out of Washington..... | 85,000.00 |

| | |
|--|--------------|
| Traveling and station and field expenses..... | \$110,000.00 |
| Miscellaneous supplies..... | 26,000.00 |
| Stationery..... | 10,000.00 |
| Furniture..... | 1,000.00 |
| Apparatus, instruments, and laboratory material..... | 500.00 |
| Rent..... | 1,000.00 |
| Gas and electricity..... | 800.00 |
| Express..... | 50.00 |
| Freight..... | 300.00 |
| Fuel..... | 125.00 |
| Telegraph and telephone..... | 75.00 |
| | 150.00 |

| | | |
|---|---|--------------|
| Total..... | | \$150,000.00 |
| Amount of above appropriation for fiscal year 1907..... | { \$105,000.00 4,367.58 } | \$109,367.58 |
| Amount of above appropriation for fiscal year 1908..... | { \$110,000.00 (increase of) 35,632.42 \$36,264.84 } | 145,632.42 |
| Amount estimated for fiscal year 1909..... | | 150,000.00 |

OFFICES, LABORATORIES, AND PROJECTS.

1. Office of Chief of Bureau.

[B. T. Galloway, Chief of Bureau.]

| | |
|---|-------------|
| Salaries, statutory..... | \$38,000.00 |
| Salaries, lump fund..... | 5,100.00 |
| Stationery, furniture, supplies, etc..... | 3,322.00 |
| Miscellaneous expenses—freight, express, fuel, gas, telephone, etc..... | 200.00 |
| Rent..... | 3,500.00 |
| Traveling expenses..... | 1,000.00 |
| Reserve funds—to meet emergencies in various lines of work..... | 17,820.00 |
| Total..... | 68,942.00 |

BUREAU OF PLANT INDUSTRY—Continued.

1. *Office of Chief of Bureau*—Continued.

PROJECTS.

| | |
|---|------------|
| (1) Administrative correspondence..... | \$5,365.00 |
| (2) General Bureau administration..... | 15,585.00 |
| (Decrease of \$12,406, as follows: Rented buildings to be vacated, \$8,520; 3 watchmen dropped, \$2,040; 1 clerk transferred, \$900; gas and electricity, \$946.) | |
| (3) Appointments, pay rolls, and leaves of absence | 3,287.00 |
| (4) Auditing and accounting (office of records)..... | 12,040.00 |
| (5) Files and mail..... | 4,045.00 |
| (6) Editing and proof-reading (editorial office) | 3,560.00 |
| (7) Executive and supervisory work, Congressional seed distribution..... | 7,240.00 |
| (Decrease of \$3,168, on account of transfer to another fund—cost of fuel.) | |
| Reserve funds..... | 17,820.00 |
| (Amount held in reserve for fiscal year 1908, \$17,820.) | |

2. *Office of Assistant Chief of Bureau.*

[Albert F. Woods, Assistant Chief of Bureau.]

| | |
|---|-------------|
| Salaries, statutory..... | \$20,000.00 |
| Salaries, lump fund..... | 11,000.00 |
| Stationery, furniture, supplies, etc..... | 2,934.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 200.00 |
| Traveling expenses..... | 500.00 |
| Total..... | 34,634.00 |

PROJECTS.

| | |
|---|-------------|
| (1) General administrative work..... | \$18,514.00 |
| (2) Supplies and property..... | 5,700.00 |
| (3) Library, translating, and abstracting work..... | 6,500.00 |
| (4) Care of pathological and physiological laboratories.... | 3,920.00 |

3. *Laboratory of plant pathology.*

[Erwin F. Smith, pathologist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$2,880.00 |
| Salaries, lump fund..... | 16,500.00 |
| Stationery, furniture, supplies, etc..... | 5,000.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 1,500.00 |
| Traveling expenses..... | 2,057.00 |
| Total..... | 27,937.00 |

PROJECTS.

| | |
|---|-------------|
| (1) Central laboratory of plant pathology..... | \$21,117.00 |
| (Increase of \$5,000 to be used, if granted, for the employment of a physiological chemist to assist in the laboratory investigations and also to secure additional scientific assistants and laboratory equipment needed for the effective prosecution of the work of the laboratory.) | |
| (2) Investigations of rice blast and other diseases of rice .. | 800.00 |
| (3) Pathological collections..... | 4,361.00 |
| (4) Laboratory investigations of diseases of various plants. | 1,659.00 |

BUREAU OF PLANT INDUSTRY—Continued.

4. *Investigations of diseases of cotton, truck crops, etc.*

[W. A. Orton, pathologist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$1,000.00 |
| Salaries, lump fund..... | 7,000.00 |
| Stationery, furniture, supplies, etc..... | 2,000.00 |
| Miscellaneous expenses—freight, express, telephone, etc.... | 100.00 |
| Traveling and station and field expenses..... | 2,712.00 |
| Total..... | 12,812.00 |

PROJECTS.

(A) *Cotton disease investigations.*

| | |
|---|------------|
| (1) Investigation of cotton wilt, anthracnose, bacterial blight, rust, shedding, etc..... | \$4,000.00 |
| (2) Cotton root-rot investigations..... | 1,500.00 |

(B) *Investigations of truck crop diseases.*

| | |
|--|------------|
| (3) Investigation of disease resistance in potatoes..... | \$1,300.00 |
| (Increase of \$500 for the further development of the work.) | |
| (4) Breeding watermelons for wilt resistance..... | 1,300.00 |
| (Increase of \$500 for the normal growth of the work and the distribution of seed of resistant watermelons.) | |
| (5) Investigations of miscellaneous diseases of truck crops.... | 1,300.00 |
| (Increase of \$500 for the development of the work and the taking up of new problems which need attention.) | |

(C) *Miscellaneous pathological investigations.*

| | |
|---|------------|
| (6) Plant disease survey..... | \$1,700.00 |
| (Increase of \$500 for the normal growth and elaboration of the work.) | |
| (7) Investigations of disease resistance in cowpeas and study of cowpea diseases..... | 432.00 |
| (8) Investigations of the root rot of tobacco..... | 950.00 |
| (Increase of \$500 for the normal growth of the work.) | |
| (9) Studies of various plant diseases..... | 330.00 |

5. *Investigations of diseases of fruits.*

[M. B. Waite, pathologist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$1,000.00 |
| Salaries, lump fund..... | 20,000.00 |
| Stationery, furniture, supplies, etc..... | 1,500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.... | 100.00 |
| Traveling and station and field expenses..... | 8,210.00 |
| Total..... | 30,810.00 |

PROJECTS.

| | |
|--|------------|
| (1) Eradication of pear blight..... | \$8,500.00 |
| (Increase of \$2,200 to secure additional assistance in the extension of the pear-blight eradication to other western States, notably Idaho, Utah, and Colorado.) | |
| (2) Demonstration work in the control of apple diseases by spraying..... | 5,000.00 |
| (Increase of \$1,000 to meet the demand for further extensions of this work. These investigations should be continued and extended in order to demonstrate practical methods of controlling the various apple diseases prevalent in different orchard sections.) | |

BUREAU OF PLANT INDUSTRY—Continued.

5. *Investigations of diseases of fruits*—Continued.

| | |
|--|------------|
| (3) Investigations of diseases of small fruits—grapes, cranberries, etc..... | \$6,600.00 |
| (4) Investigations of diseases of the peach and plum..... (Increase of \$500 for the further extension of the work on peach and plum rot.) | 5,500.00 |
| (5) Investigations of miscellaneous diseases of fruits and fruit trees..... (Increase of \$1,300 for the further development of the work on pollination of fruits and chlorosis.) | 5,210.00 |

6. *Laboratory of forest pathology (Washington, D. C.).*

[Haven Metcalf, pathologist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$1,200.00 |
| Salaries, lump fund..... | 7,500.00 |
| Stationery, furniture, supplies, etc..... | 1,000.00 |
| Miscellaneous expenses—freight, express, telephone, etc.... | 500.00 |
| Traveling and station and field expenses..... | 2,885.00 |
| Total..... | 13,085.00 |

PROJECTS.

| | |
|--|------------|
| (1) Investigation of the crown-gall disease of forest and fruit trees..... | \$1,500.00 |
| (2) Investigation of the blue stain of coniferous and other woods (Doctor Metcalf)..... (Decrease of \$425, as the work is approaching completion.) | 500.00 |
| (3) Study of diseases of coniferous trees (Dr. Metcalf)..... (Increase of \$620 for the extension of this work on the national forests in cooperation with the Forest Service.) | 2,500.00 |
| (4) Investigation of diseases of oaks and other hard woods (Doctor Metcalf)..... | 1,500.00 |
| (5) Study of miscellaneous diseases of forest trees (Doctor Metcalf)..... | 3,000.00 |
| (6) Investigation of diseases of ornamental and shade trees and shrubs (Doctor Metcalf)..... (Increase of \$1,700 for the elaboration of this line of work, which promises valuable results.) | 2,685.00 |
| (7) Study of the occurrence and prevalence of diseases of trees (Doctor Metcalf)..... (Increase of \$605 for the normal growth of the work.) | 1,400.00 |

7. *Plant life history investigations.*

[Walter T. Swingle, physiologist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$3,000.00 |
| Salaries, lump fund..... | 15,000.00 |
| Stationery, furniture, supplies, etc..... | 4,500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.... | 1,000.00 |
| Traveling and station and field expenses..... | 3,088.00 |
| Total..... | 26,588.00 |

BUREAU OF PLANT INDUSTRY—Continued.

7. *Plant life history investigations*—Continued.

PROJECTS.

| | |
|---|------------|
| (1) Establishment of date culture and study of the life history of the date palm..... | \$4,300.00 |
| (Increase of \$1,000, for the inauguration of experiments in date breeding and in starting offshoots from old date palms, and for the improvement of methods of propagation.) | |
| (2) Arboricultural investigations..... | 9,000.00 |
| (Increase of \$3,000, for extending the cooperative work on the Indian reservations by the establishment of experimental farms on three more reservations in the Southwest.) | |
| (3) Clover and alfalfa investigations..... | 5,500.00 |
| (4) Breeding new citrus fruits and pineapples..... | 3,000.00 |
| (Increase of \$1,000 for continuing the work on the development of citranges, or hardy substitutes for lemons and limes.) | |
| (5) Caprification of the fig and study of the life history of figs and capriffs..... | 1,300.00 |
| (6) Establishment of pistache culture and study of the life history of the pistache nut and its wild relatives..... | 900.00 |
| (7) Miscellaneous life history investigations..... | 2,588.00 |

8. *Cotton-breeding investigations.*

[A. D. Shamel and D. N. Shoemaker, officers in charge.]

| | |
|--|-----------|
| Salaries, statutory..... | \$400.00 |
| Salaries, lump fund..... | 11,468.00 |
| Stationery, furniture, supplies, etc..... | 1,600.00 |
| Miscellaneous expenses, freight, express, telephone, etc.... | 492.00 |
| Traveling and station and field expenses..... | 6,500.00 |
| Total..... | 20,460.00 |

PROJECTS.

| | |
|---|----------|
| (1) Cotton-breeding laboratory..... | 2,170.00 |
| (2) Breeding cottons adapted to northern Texas..... | 1,650.00 |
| (3) Breeding cottons adapted to Louisiana and Mississippi..... | 2,580.00 |
| (4) Breeding cottons adapted to southern Texas..... | 2,080.00 |
| (5) Study of methods of ginning and marketing cotton.... | 2,500.00 |
| (6) Breeding cotton adapted to South Carolina..... | 2,950.00 |
| (7) Testing the value of seed separation and fertilizers in cotton culture..... | 870.00 |
| (8) Breeding cottons adapted to Tennessee and Arkansas..... | 2,310.00 |
| (9) Breeding cotton for greater oil content..... | 850.00 |
| (10) Cooperative cotton breeding investigations..... | 2,500.00 |

9. *Tobacco investigations.*

[A. D. Shamel, physiologist in charge.]

| | |
|---|-----------|
| Salaries, statutory..... | \$400.00 |
| Salaries, lump fund..... | 28,000.00 |
| Stationery, furniture, supplies, etc..... | 4,500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 1,000.00 |
| Traveling and station and field expenses..... | 8,323.00 |
| Total..... | 42,223.00 |

PROJECTS.

| | |
|---|------------|
| (1) Laboratory investigations in connection with field-work on tobacco..... | \$5,000.00 |
| (Increase of \$1,000 for the normal growth of the laboratory work.) | |
| (2) Tobacco investigations in the Connecticut valley..... | 6,023.00 |

BUREAU OF PLANT INDUSTRY—Continued.

9. Tobacco investigations—Continued.

- | | |
|---|--------------|
| (3) Tobacco investigations in Florida..... | \$6, 500. 00 |
| (Increase of \$1,000 for the extension of the work.) | |
| (4) Tobacco investigations in Maryland | 1, 500. 00 |
| (Increase of \$500 for necessary assistance in this work.) | |
| (5) Tobacco investigations in Kentucky..... | 3, 700. 00 |
| (Increase of \$500 for the development of the work.) | |
| (6) Tobacco investigations in Texas—W. M. Hinson and Otto Olson, experts: | |

The work in Texas was inaugurated by the Bureau of Soils about five years ago, having for its object the introduction of the culture of cigar-filler tobacco, by growing the product from imported Cuban seed. This part of the industry is now fairly well established, but the question of improving this filler tobacco by selection and breeding needs attention, because the yield is low and the quality uneven. The indications are that marked improvements can be easily obtained by the methods followed in Florida, and after the completion of the present year's work it is planned to reorganize the Texas investigations along the practical lines of breeding and selection, and the improvement of farm practice.....

6, 000. 00

(Amount allotted for fiscal year 1908, \$5,000.)

Results: Improved strains of Cuban tobacco from Texas-grown seed has been found to produce about double the yield of crops grown from imported seed. The past season sufficient seed of these improved strains has been saved under bag to furnish all seed needed for planting the coming season.

The methods of fertilization best adapted to the production of the greatest yield of high quality of filler tobacco are being studied and experiments have been laid out for the coming season to determine the best combination of fertilizers and methods of culture to raise profitable crops.

(Increase of \$1,000 for the extension of the work in Texas.)

- | | |
|--|--|
| (7) Tobacco investigations in Virginia—E. H. Mathewson and W. W. Green, experts: | |
|--|--|

This work was begun by the Bureau of Soils in 1904, having for its object the improvement of dark and fire-cured tobaccos in the Appomattox region by better methods of crop rotation and farm practice. The Virginia Experiment Station cooperates in the conduct of the work, furnishing two assistants. The work is handled from the general standpoint of improving farm practice as a whole, rather than from the strict tobacco viewpoint. In addition to this work, experiments are to be inaugurated in the improvement of the tobaccos by selection and hybridization.....

5, 000. 00

(Amount allotted for fiscal year 1908, \$4,000.)

Results: Very important results have been secured and the demonstrations are attracting wide attention. It has been shown that it is necessary to rotate the tobacco crop with other general farm crops, and that profitable yields of grass, wheat, and other crops can be secured in the tobacco fields, and the soil improved for the growing of tobacco. The results of experiments demonstrate that the use of much more intensive methods of culture are

BUREAU OF PLANT INDUSTRY—Continued.

9. Tobacco investigations—Continued.

(7) Tobacco investigations in Virginia—Continued.

desirable. An increased and more intelligent use of fertilizers on limited areas will produce more profitable results than the present more extensive system of farm practice. Improved strains of Virginia tobaccos are being produced by seed selection and breeding.

(Increase of \$1,000 for the continuance and normal growth of the work.)

(8) Tobacco investigations in Alabama—W. M. Hinson and W. B. Schrader, experts:

The work in Alabama is also a continuation of the investigations inaugurated in that State by the Bureau of Soils. At present about 225 acres of Cuban tobacco are being grown experimentally by farmers; and two experiments are being conducted in the production of shade Sumatra tobacco. The demand for the continuance and extension of this work in Alabama is very strong, and it should be continued at least for another season. The problems are very complicated and need to be taken up from the standpoint of the general cropping system and the adaptation and improvement of special types of tobacco to meet the particular requirements in the State. The situation in Alabama needs to be worked out slowly and with careful consideration of all of the problems involved, as an undue stimulation of the industry would be unwise.....

\$3, 500. 00

(Amount allotted for fiscal year 1908, \$3,500.)

Results: Selections of seed of the best plants from the filler standpoint have been made, and will be distributed to the growers for next season's planting. The market for this tobacco has not been established as yet, and it is necessary to assist the growers in finding a market for their crops. Methods of fertilizing the soil, and curing and fermenting the tobacco are being investigated.

(9) Tobacco investigations in Ohio—Mr. Shamel, in cooperation with A. D. Selby, collaborator (botanist of the Ohio Experiment Station):

These investigations are conducted in cooperation with the Ohio Experiment Station, having for their object the improvement of the native tobaccos by hybridization and selection. The work taken over from the Bureau of Soils consists in the improvement of the methods of fermentation of the native tobaccos so as to reduce the amount of dry rot resulting from the old methods.....

2, 000. 00

(Amount allotted for fiscal year 1908, \$2,000.)

Results: Good progress has already been made in the hybridization and selection work, which was only started a year or so ago. A large number of new types, hybrids, and improved strains of tobacco have been tested, some of which have been found to possess special merit for cigar filler production, giving a high yield per acre and possessing a desirable flavor and aroma. Several wrapper types also show merit and value for commercial propagation. The work of the Bureau of Soils in Ohio has been productive of very satisfactory results. The introduction of the bulk fermentation method has reduced the amount of rot considerably, but a further study of the question by a pathologist is necessary. The work on bulk fermentation was

BUREAU OF PLANT INDUSTRY—Continued.

9. Tobacco investigations—Continued.

(9) Tobacco investigations in Ohio—Continued.

started by the Bureau of Soils in 1902, and in 1903-4 that Bureau also planted test crops of tobacco, the product being fermented and packed by its experts and samples sent to the trade. The improved methods of saving and separating seed have been introduced and are now in general use by tobacco growers.

(10) Tobacco investigations in New York—G. W. Harris, expert:

The work in New York, like that in Virginia, Alabama, and Texas, is a continuation of experiments started by the Bureau of Soils. These are located in Onondaga County, where the tobacco grown is the same as that grown in the Connecticut Valley. The New York product, however, has deteriorated during recent years in quality and price, owing either to the fact that the crop is not planted on the right kind of soil for the production of good wrapper, or to a lack of knowledge in the application of fertilizers and the general handling of the crop. The object of the experiments is to determine the cause of the difficulty and to correct it.

\$2,000.00

(Amount allotted for fiscal year 1908, \$2,000.)

Results: The work so far has shown that there is much room for improvement both in cultural methods and in the types of tobacco grown. It is believed that the improved Connecticut strains will also do well in New York, and a considerable quantity of improved seed grown in experimental plots has been saved for distribution to the growers the coming season. The introduction of the bulk methods of fermentation is being successfully carried on.

(11) Tobacco investigations in California—J. B. Stewart, expert:

The work in California has so far consisted merely in a preliminary experiment to demonstrate, either positively or negatively, whether good cigar-filler tobacco can be profitably produced in that State. On account of the dry climate the problem is a complicated one. The State of California has appropriated \$1,000 for augmenting the work, to be expended under the direction of the Department. Only a small acreage has been planted and the work so far is strictly preliminary. The fermentation of this year's experimental crop will be supervised by one of the Department's experts...

1,000.00

(Amount allotted for fiscal year 1908, \$1,000.)

Results: Owing to the preliminary nature of the work a definite statement or prediction of results is not practicable at the present time.

10. Corn investigations.

[C. P. Hartley, physiologist in charge.]

| | |
|--|--------------|
| Salaries, statutory..... | \$1, 140. 00 |
| Salaries, lump fund..... | 6, 500. 00 |
| Stationery, furniture, supplies, etc..... | 1, 000. 00 |
| Miscellaneous expenses—freight, express, telephone, etc... | 300. 00 |
| Traveling and station and field expenses..... | 4, 151. 00 |
| Total..... | 13, 091. 00 |

BUREAU OF PLANT INDUSTRY—Continued.

10. *Corn investigations*—Continued.

PROJECTS.

| | |
|--|------------|
| (1) Production of improved strains of corn by breeding and selection—Mr. Hartley..... | \$7,000.00 |
| (2) Encouragement of seed selection and preservation and improved methods of corn culture—Mr. Hartley... | 1,500.00 |
| (3) Investigation of the effects of heredity and environment of corn—Mr. Hartley..... | 1,500.00 |
| (4) Sweet-corn investigations—Mr. Hartley..... | 3,091.00 |

11. *Alkali and drought-resistant plant-breeding investigations.*

[T. H. Kearney, physiologist in charge.]

| | |
|--|-----------|
| Salaries, statutory..... | \$420.00 |
| Salaries, lump fund..... | 6,500.00 |
| Stationery, furniture, supplies, etc..... | 1,557.00 |
| Miscellaneous expenses—freight, express, telephones, etc.. | 300.00 |
| Traveling and station and field expenses..... | 4,500.00 |
| Total..... | 13,277.00 |

PROJECTS.

| | |
|---|------------|
| (1) Ascertaining the alkali resistance of crop plants and investigating the physiology of resistance to alkali... (Increase of \$250 for the normal growth of the work.) | \$2,500.00 |
| (2) Breeding strains of various field crops which will be resistant to alkali..... (Increase of \$725 for the extension and development of the work.) | 5,350.00 |
| (3) Breeding drought-resistant field crops..... (Increase of \$1,220 for an elaboration of this project, which promises valuable results.) | 2,927.00 |
| (4) Breeding cottons for the arid Southwest..... | 1,500.00 |
| (5) Ascertaining value of native growth as a soil indicator.. (Increase of \$625 for the continuance and elaboration of this work.) | 1,000.00 |

12. *Miscellaneous plant breeding and relative work.*

[Conducted by various investigators.]

| | |
|---|----------|
| Salaries, statutory..... | \$400.00 |
| Salaries, lump fund..... | 4,500.00 |
| Stationery, furniture, supplies, etc..... | 800.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 330.00 |
| Traveling and station and field expenses..... | 3,500.00 |
| Total..... | 9,530.00 |

PROJECTS.

| | |
|---|------------|
| (1) Breeding rust-resistant asparagus..... (Increase of \$2,500 for the elaboration and extension of the work.) | \$4,000.00 |
| (2) Improvement of potatoes through tuber selections and production of new varieties from seed..... | 500.00 |
| (3) The introduction and improvement of vetches for use as cover crops for tobacco fields..... (Increase of \$2,500 for the extension of this promising line of work.) | 3,130.00 |
| (4) Improvement of various plants by hybridization..... | 700.00 |
| (5) Testing fine-ground fieldspar as a potash fertilizer..... | 1,200.00 |

BUREAU OF PLANT INDUSTRY—Continued.

13. *Soil bacteriology and water purification investigations.*

[Karl F. Kellerman, physiologist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$1, 200. 00 |
| Salaries, lump fund..... | 12, 000. 00 |
| Stationery, furniture, supplies, etc..... | 1, 800. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 200. 00 |
| Traveling and station and field expenses..... | 5, 650. 00 |
| Total..... | 20, 850. 00 |

PROJECTS.

| | |
|---|-------------|
| (1) Soil bacteriology investigations..... | 11, 000. 00 |
| (Increase of \$5,000, for more extensive field work in different parts of the United States.) | |
| (2) Experiments with legume bacteria..... | 6, 300. 00 |
| (3) Water purification investigations..... | 3, 550. 00 |

14. *Bionomic investigations of tropical and subtropical plants.*

[O. F. Cook, bionomist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$1, 400. 00 |
| Salaries, lump fund..... | 14, 000. 00 |
| Stationery, furniture, supplies, etc..... | 1, 375. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 200. 00 |
| Traveling and station and field expenses..... | 3, 500. 00 |
| Total..... | 20, 475. 00 |

PROJECTS.

| | |
|---|-------------|
| (1) Weevil-resistant cotton investigations..... | 10, 500. 00 |
| (2) Corn-extension investigations..... | 5, 300. 00 |
| (3) Study of the physiology of reproduction..... | 1, 200. 00 |
| (4) Production of rubber and rubber substitutes in the United States..... | 1, 200. 00 |
| (5) Bionomic studies of various tropical and subtropical plants..... | 2, 275. 00 |

15. *Drug plant, poisonous plant, and tea-culture investigations.*

[Rodney H. True, physiologist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$5, 320. 00 |
| Salaries, lump fund..... | 27, 000. 00 |
| Stationery, furniture, supplies, etc..... | 10, 000. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 896. 00 |
| Traveling and station and field expenses..... | 10, 000. 00 |
| Total..... | 53, 216. 00 |

(A) *Drug-plant investigations.*

| | |
|--|------------|
| (1) Establishment of the camphor industry—Doctor True..... | 3, 800. 00 |
| (2) American hop investigations—W. W. Stockberger, expert..... | 4, 000. 00 |
| (3) Study of the methods and means of making and using industrial alcohol on the farm—Doctor True..... | 4, 500. 00 |
| (Increase of \$5,000 is desired for the extension of this year's preliminary work.) | |
| (4) Production of morphine and other alkaloids from poppy capsules—Doctor True..... | 2, 500. 00 |
| (5) Compilation of information on drug plants for publication—Alice Henkel, assistant..... | 2, 000. 00 |
| (6) Tests of various drug-producing plants—Doctor True.. | 6, 516. 00 |

BUREAU OF PLANT INDUSTRY—Continued.

15. *Drug plant, poisonous plant, and tea-culture investigations*—Continued.(B) *Poisonous-plant investigations.*

| | |
|---|-------------|
| (7) Investigations of the cause of loco-weed disease in animals—C. Dwight Marsh, expert..... | \$7, 000.00 |
| (8) Studies of various stock-poisoning plants—Doctors True, Marsh, and Crawford..... | 4, 500.00 |
| (9) Cooperative investigations of stock poisoning on the national forests—Now conducted by the Forest Service in cooperation with Doctor Marsh: This work consists of field studies on the national forests and other areas in the West, where great losses of stock due to poisoning occur, and laboratory investigations as to the causes of these losses are conducted in Washington, D. C. The objects are to ascertain what plants are causing the great losses of stock in those regions and to give suggestions as to treatment..... | 5, 000.00 |
| Results: A somewhat careful botanical exploration has been made of the poisonous plant areas in the Manti National Forest. Preliminary examinations of conditions have also been made in Huachuca and Baboquivan Reserves in Arizona, the Black Hills Reserve in South Dakota, and the Holy Cross Reserve in Colorado. These preliminary studies show pretty clearly the direction which fruitful investigation must take. (The increase of \$5,000 is desired in order that the expenses of this work may be defrayed by the Bureau of Plant Industry, to whose province the work logically belongs.) | |
| (10) Tea investigations in South Carolina—Doctor True... | 1, 800.00 |
| (11) Tea investigations in Texas—Doctor True in cooperation with A. P. Borden..... | 3, 300.00 |
| (12) Study of the relation of tea constituents to price and quality—Doctor True..... | 500.00 |

(D) *Special investigations.*

| | |
|--------------------------------|-----------|
| (13) Lemon investigations..... | 2, 800.00 |
|--------------------------------|-----------|

16. *Physical laboratory.*

[Lyman J. Briggs, physicist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$480.00 |
| Salaries, lump fund..... | 8, 500.00 |
| Stationery, furniture, supplies, etc..... | 3, 500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 300.00 |
| Traveling and station and field expenses..... | 3, 216.00 |
| Total..... | 15, 996.00 |

PROJECTS.

| | |
|---|-----------|
| (1) Cooperative physical investigations in the arid West.. (Increase of \$2,000 for conducting these investigations in connection with the cereal farms in cooperation with the grain investigations of the Bureau, and in connection with the demonstration farms on the reclamation projects in the semi-arid West.) | 9, 500.00 |
| (2) Centrifugal investigations of plant nutrient solutions.. | 4, 000.00 |
| (3) Electrochemical experiments..... | 2, 496.00 |

BUREAU OF PLANT INDUSTRY—Continued.

17. *Crop technology investigations.*

[N. A. Cobb, expert in charge.]

| | |
|---|--------------|
| Salaries, lump fund..... | \$7, 000. 00 |
| Stationery, furniture, supplies, etc..... | 2, 500. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 300. 00 |
| Traveling and station and field expenses..... | 2, 155. 00 |
| Total..... | 11, 955. 00 |

PROJECTS.

| | |
|--|------------|
| (1) Crop Technology Laboratory..... | 4, 500. 00 |
| (Increase of \$1,200, for the development of the work of the laboratory, the installation of necessary additional equipment, etc.) | |
| (2) Technological studies of cereals..... | 4, 000. 00 |
| (Increase of \$2,000, for the normal growth of the work.) | |
| (3) Improvement of agricultural apparatus..... | 2, 600. 00 |
| (Increase of \$1,400, to elaborate the scope of this line of investigation.) | |
| (4) Technological studies of plant diseases..... | 855. 00 |

18. *Fiber plant investigations.*

[Lyster H. Dewey, botanist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$1, 000. 00 |
| Salaries, lump fund..... | 5, 000. 00 |
| Stationery, furniture, supplies, etc..... | 500. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 200. 00 |
| Traveling and station and field expenses..... | 950. 00 |
| Total..... | 7, 650. 00 |

PROJECTS.

| | |
|---|------------|
| (1) Sisal and henequen fiber investigations..... | 1, 700. 00 |
| (Increase of \$500 is desired to arrange for trial planting in southern California and in southern Florida.) | |
| (2) Ixtlee fiber investigations..... | 1, 200. 00 |
| (Increase of \$200 is desired for normal growth of work.) | |
| (3) Hemp investigations..... | 1, 000. 00 |
| (Increase of \$200 is desired to aid in a similar and more extensive demonstration in Missouri, where hemp growing was discontinued fifty years ago. Work on the production of hemp seed of improved varieties is also contemplated.) | |
| (4) Flax fiber investigations..... | 800. 00 |
| (Increase of \$100 for extension of work.) | |
| (5) Ramie fiber investigations..... | 450. 00 |
| (6) Classification of cotton varieties..... | 2, 500. 00 |

19. *Taxonomic investigations.*

[Frederick V. Coville, botanist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$6, 720. 00 |
| Salaries, lump fund..... | 14, 500. 00 |
| Stationery, furniture, supplies, etc..... | 2, 000. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 300. 00 |
| Traveling and station and field expenses..... | 2, 690. 00 |
| Total..... | 26, 210. 00 |

BUREAU OF PLANT INDUSTRY—Continued.

19. *Taxonomic investigations*—Continued.

PROJECTS.

| | |
|---|-------------|
| (1) Study and improvement of grazing areas in the national forests..... | \$4, 000.00 |
| (2) Preparation of a manual of the American grasses..... | 6, 500.00 |
| (3) Economic collections of specimens of cultivated plants..... | 6, 500.00 |
| (4) Preparation for publication of notes of Dr. Edward Palmer on economic plants..... | 2, 500.00 |
| (5) Preparation of a catalogue of the literature of botany.... | 2, 000.00 |
| (6) Preparation of a manual of the flora of Alaska..... | 1, 500.00 |
| (7) Care of botanical laboratories..... | 2, 710.00 |

20. *Farm-management investigations.*

[W. J. Spillman, agriculturist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$10, 500.00 |
| Salaries, lump fund..... | 50, 000.00 |
| Stationery, furniture, supplies, etc..... | 5, 000.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 500.00 |
| Traveling and station and field expenses..... | 26, 905.00 |
| Total..... | 92, 905.00 |

PROJECTS.

(A) *Farm management districts.*

| | |
|---|-----------|
| (1) District No. 1, North Carolina, South Carolina, and Florida..... | 2, 630.00 |
| (2) District No. 2, Alabama and Mississippi..... | 4, 000.00 |
| (3) District No. 3, Louisiana and Arkansas..... | 5, 850.00 |
| (4) District No. 4, Texas..... | 6, 250.00 |
| (5) District No. 5, New York and the New England States. (Increase of \$1,750 for an assistant to Mr. Dodge, and traveling expenses.)..... | 4, 585.00 |
| (6) District No. 6, Oregon, Washington, and Idaho..... (Increase of \$1,750 for an assistant to Mr. Hunter, and traveling expenses.)..... | 5, 785.00 |
| (7) District No. 7, Kansas, Nebraska, Iowa, and Missouri..... | 3, 700.00 |
| (8) District No. 8, Virginia, Maryland, Delaware, and West Virginia, H. A. Miller, assistant agriculturist in charge: The work in this district is similar to that in District No. 1, previously described, with the exception of those lines bearing directly on the cotton boll weevil problem..... (Amount allotted for fiscal year 1908, \$2,150.) Results: A general agricultural survey of this district was made during the past year, and work has begun on the most urgent problems in the peanut, tobacco, and grain sections. | 2, 150.00 |
| (9) District No. 9, Kentucky and Tennessee: The work in this district is similar to that in District No. 1, previously described..... (Amount allotted for fiscal year 1908, \$1,000.) Results: The preliminary work has resulted in securing much valuable data, which will aid in the inauguration of active work in this district during the present year. | 1, 000.00 |
| (10) District No. 10, New Jersey and Pennsylvania: The work in this district is similar to that in District No. 1, previously described, with the exception of those lines bearing directly on the cotton boll weevil problem..... (Amount allotted for fiscal year 1908, \$1,770.) Results: The preliminary work has resulted in securing much valuable data which will aid in the inauguration of active work in this district during the present year. | 1, 770.00 |

BUREAU OF PLANT INDUSTRY—Continued.

20. *Farm-management investigations*—Continued.

| | |
|---|--------------|
| (11) District No. 11, Wisconsin, Michigan, Minnesota, North Dakota, and South Dakota: | |
| The work in this district is similar to that in District No. 1, previously described, with the exception of those lines bearing directly on the cotton boll weevil problem..... | |
| (Amount allotted for fiscal year 1908, \$4,000.) | \$4, 000. 00 |
| Results: The preliminary work has resulted in securing much valuable data which will aid in the inauguration of active work in this district during the present year. | |
| (12) District No. 12, New Mexico, Arizona, Utah, Nevada, and Western Colorado—David Griffiths, assistant agriculturist in charge: | |
| The work in this district is similar to that in District No. 1, previously described, with the exception of those lines bearing directly on the cotton boll weevil problem..... | |
| (Amount allotted for fiscal year 1908, \$1,200.) | 1, 200. 00 |
| Results: The preliminary work has resulted in securing much valuable data which will aid in the inauguration of active work in this district during the present year. | |
| (13) Methods of eradicating weeds..... | 3, 800. 00 |
| (Increase of \$500 for additional assistance and field work.) | |
| (14) Hay and hay making..... | 3, 225. 00 |
| (15) Farm practice in the production of forage for beef cattle and sheep..... | 6, 500. 00 |
| (Increase of \$1,300 for increase of \$300 in Mr. Cotton's salary and salary of one assistant.) | |
| (16) Farm practice in the production of forage for hogs.... | 2, 000. 00 |
| (Increase of \$200 for increase of Mr. Quinn's salary.) | |
| (17) Study of farm equipment..... | 2, 600. 00 |
| (18) Manures and fertilizers..... | 2, 500. 00 |
| (19) Soiling and silage crops..... | 2, 620. 00 |
| (20) Farm practice in corn culture..... | 2, 120. 00 |
| (21) Trucking on diversification farms..... | 2, 000. 00 |
| (22) Cassava investigations..... | 1, 250. 00 |
| (23) Study of coarse legumes..... | 1, 500. 00 |
| (Increase of \$500 for an increase of \$200 in Mr. Crosby's salary and additional traveling expenses.) | |
| (24) Diversification of crops on rice lands..... | 800. 00 |
| (25) Study of farm practice in cereal culture and collection of phenological data regarding crop production. | 2, 000. 00 |
| (Increase of \$200 for increase of Mr. Miller's salary.) | |
| (26) Miscellaneous studies of farm practice..... | 4, 040. 00 |
| (Increase of \$1,140 for increase of \$300 in Mr. Dodge's salary, increase of \$200 in Mr. Drake's salary, and additional traveling expenses.) | |
| (27) Study of business systems in farming..... | 6, 880. 00 |
| (Increase of \$1,000 for additional traveling and miscellaneous expenses in securing records.) | |
| (28) Range investigations..... | 2, 510. 00 |
| (29) Cactus investigations..... | 2, 640. 00 |
| (30) Agricultural surveys..... | 1, 000. 00 |
| (Increase of \$160 for additional traveling expenses.) | |

BUREAU OF PLANT INDUSTRY—Continued.

21. Grain investigations.

[M. A. Carleton, cerealist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$3,780.00 |
| Salaries, lump fund..... | 30,000.00 |
| Stationery, furniture, supplies, etc..... | 1,500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 400.00 |
| Traveling and station and field expenses..... | 6,563.00 |
| Total..... | 42,243.00 |

PROJECTS.

| | |
|---|----------|
| (1) Wheat investigations..... | 4,500.00 |
| (2) Oat investigations..... | 5,500.00 |
| (3) Barley investigations..... | 3,500.00 |
| (4) Sorghum investigations..... | 3,500.00 |
| (5) Cereal diseases..... | 6,500.00 |
| (6) Grain experiments in the Texas Panhandle..... | 3,500.00 |
| (7) Investigations of dry-land cereals..... | 8,443.00 |
| (8) Crop rotations in relation to cereals..... | 2,500.00 |
| (9) Study of the effect of environment on the composition of grains..... | 2,000.00 |
| (10) Investigation of the food value of grains..... | 2,300.00 |

22. Grain standardization.

[John D. Shanahan, expert in charge.]

| | |
|---|-------------|
| Salaries, lump fund..... | \$40,000.00 |
| Stationery, furniture, supplies, etc..... | 12,000.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 500.00 |
| Rent..... | 3,500.00 |
| Traveling and station and field expenses..... | 9,000.00 |
| Total..... | 65,000.00 |

PROJECTS.

| | |
|--|----------|
| (1) Laboratory investigations in grain standardization, Washington, D. C..... | 9,800.00 |
| (Increase of \$1,200 is desired for the installation of necessary and improved apparatus in order to extend and improve the facilities and work of this project.) | |
| (2) European grain standardization laboratory..... | 4,000.00 |
| (Increase of \$500 is desired for the reason that the allotment for the work this year is inade- quate to get best results and information for the purposes of the project of grain standardization.) | |
| (3) Grain standardization laboratory, Baltimore, Md..... | 5,000.00 |
| (Increase of \$500 for additional apparatus, elab- orating the work, and extending the facilities of the laboratory.) | |
| (4) Grain standardization laboratory, New Orleans, La.... | 5,000.00 |
| (Increase of \$500 for additional apparatus, elab- orating the work, and extending the facilities of the laboratory.) | |
| (5) Grain standardization laboratory, Duluth, Minn.— F. J. Ryder, assistant: | |

The work in this laboratory is practically similar to that of the Baltimore laboratory previously described. The laboratory was established at this point for the reason that it is one of the principal distributing and export points for the hard spring wheats grown in the northwest section, and at which point the Department has excellent facilities for studying these wheats. The aim is to secure samples of grain passing through the Duluth

BUREAU OF PLANT INDUSTRY—Continued.

22. Grain standardization—Continued.

- (5) Grain standardization laboratory, Duluth, Minn.—
F. J. Ryder, assistant—Continued.

market, and such information and data concerning the handling, shipping, storing, and inspecting of grain at this point as will aid in the establishment of definite and honest grades.....

\$5,000.00

(Amount allotted for fiscal year 1908, \$4,800.)

Results: This laboratory is especially important as representing grain in the hard spring wheat growing section of the Northwest, and was opened for business about October 1 of this year. About 300 samples have been submitted to and analyzed by this laboratory. Considerable information and data have been collected relating to the handling, shipping, storing, and inspecting of grain at this point, especially with reference to what is known as the dockage system. In other words, fixing the amount of weed seeds, dirt, and foreign material in these wheats.

(The increase of \$200 is desired for additional apparatus, elaborating the work, and extending the facilities of the laboratory.)

- (6) Grain standardization laboratory, Minneapolis, Minn.—
L. A. Fitz, assistant:

The work in this laboratory is practically similar to that of the Baltimore laboratory previously described. The laboratory was established at this point for the reason that it is one of the principal milling and distributing points for the hard spring wheats grown in the northwest section, and at which point the Department has excellent facilities for studying the milling of these wheats. The aim is to secure samples of grain passing through the market and into the mills at Minneapolis, and such information and data concerning the handling, milling, shipping, storing, and inspecting of grain at this point as will aid in the establishment of definite and honest grades.....

5,000.00

(Amount allotted for fiscal year 1908, \$4,800.)

Results: This laboratory is especially important as representing the milling and marketing of grain in the hard spring wheat growing section of the Northwest, and was opened for business October 1 of this year. About 300 samples have been submitted to and analyzed by this laboratory. Considerable information and data have been collected relating to the milling, handling, shipping, storing, and inspecting of grain at this point, especially with reference to what is known as the dockage system in connection with its value from the miller's point of view.

(Increase of \$200 for additional apparatus, elaborating the work and extending the facilities of the laboratory.)

- (7) Grain standardization laboratory, St. Louis, Mo.—W.
P. Carroll, assistant:

The work in this laboratory is practically similar to that of the Baltimore laboratory previously described. The laboratory was established at this point for the reason that it is one of the principal distributing and milling points for the hard and soft winter wheats grown in the Middle Northwest section. There is also much grain, including corn, shipped from this point to the Gulf ports for ex-

BUREAU OF PLANT INDUSTRY—Continued.

22. Grain standardization—Continued.

- (7) Grain standardization laboratory, St. Louis, Mo.—W. P. Carroll, assistant—Continued.

port, and at this point the Department has excellent facilities for studying these features. The aim is to secure samples of grain passing through the market and into the mills at this point and such information and data concerning the handling, shipping, storing, and inspecting of grain at this point as will aid in the establishment of definite and honest grades.

\$5,000.00

(Amount allotted for fiscal year 1908, \$4,800.)

Results: This laboratory is especially important as representing the hard and soft red winter wheats and corn grown in the Middle West section and was opened for business about September 15 of this year. About 400 samples have been submitted to and analyzed by this laboratory. Considerable information and data have been collected relating to the handling, milling, shipping, storing, and inspecting of grain at this point, especially with reference to the milling of wheats grown in this section, and the shipment of corn to ports on the Gulf of Mexico for export.

(Increase of \$200 for additional apparatus, elaborating the work, and extending the facilities of the laboratory.)

- (8) Grain standardization laboratory, New York, N. Y.—C. E. Leighy, assistant:

The work at this laboratory is to be practically similar to that of the Baltimore laboratory, previously described. The laboratory was established at this point for the reason that it is the largest export market for cereal grains in the United States, besides being a North Atlantic port, at which point the Department will have excellent facilities for studying all classes of commercial grains in connection with the climatic conditions of the North Atlantic coast, and to collect such information and data concerning the handling, shipping, storing, and inspecting of grain at this point as will aid in the establishment of definite and honest grades.

5,000.00

(Amount allotted for fiscal year 1908, \$4,500.)

Results: This laboratory has not yet been opened for business on account of the new customhouse at this point, in which the laboratory is to be located, not having been finished, and it is hoped to open it early in the year, when it will be especially important as representing all kinds of cereal grains handled at a North Atlantic seaport.

(Increase of \$500 for additional apparatus, elaborating the work, and extending the facilities of the laboratory.)

- (9) Grain standardization laboratory, Buffalo, N. Y.:

The work to be essentially the same as at the other laboratories. At this point the Department would have especially good opportunities for studying the handling, shipping, storing, distributing, and inspecting of grain at one of the largest interior distributing points for same in the United States, where practically all kinds and classes of grain grown in the United States and Canada are concentrated. The Buffalo Corn Exchange has urged the establishment of this laboratory.

3,700.00

BUREAU OF PLANT INDUSTRY—Continued.

22. Grain standardization—Continued.

- (10) Grain standardization laboratory, Chicago, Ill.:
The work to be essentially the same as at the other laboratories now established. It is desired to place a laboratory at this point for the reason that it is the largest primary grain market in the world; consequently, the Department will have especially good facilities for studying questions in connection with the grain business generally. The Chicago Board of Trade has urged the establishment of this laboratory..... \$3, 600. 00
- (11) Grain standardization laboratory, Kansas City, Mo.:
The work to be essentially the same as at the other laboratories now established. It is desired to establish a laboratory at this point for the reason that it is the largest primary market for hard red winter wheat, and the Department will have especially good facilities for studying this wheat and the methods of handling it. The Kansas City Board of Trade has urged the establishment of this laboratory..... 3, 200. 00
- (12) Grain standardization laboratory, Philadelphia, Pa.:
The work to be essentially the same as at the other laboratories now established. It is desired to establish a laboratory at this point, which is neither a northern nor a southern Atlantic port, and from which large quantities of corn are exported annually. The Department will have good opportunities to study the export of corn, and the weather conditions affecting it as compared with New York, Baltimore, and New Orleans. The Philadelphia Commercial Exchange has urged the establishment of this laboratory..... 3, 200. 00
- (13) Grain and flour testing laboratory:
This laboratory is desired for the reason that it is believed that it will be of great benefit and value to the millers of wheat and other cereals in this country, and that it will be important in fixing the manufacturing and milling values of the cereal grains grown in the United States. It is important that careful investigations be made of the bread-making value of wheats as there are many factors that enter into these values, upon which very little scientific work has been done, and it is essential that these be worked out in connection with the establishment of United States standards for grain grades..... 7, 500. 00

23. Arlington experimental farm and truck crop investigations.

[L. C. Corbett, horticulturist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$6, 460. 00 |
| Salaries, lump fund..... | 21, 000. 00 |
| Stationery, furniture, supplies, etc..... | 8, 500. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 200. 00 |
| Traveling and station and field expenses..... | 3, 615. 00 |
| Total..... | 39, 775. 00 |

BUREAU OF PLANT INDUSTRY—Continued.

23. *Arlington experimental farm and truck crop investigations*—Continued.

PROJECTS.

| | |
|---|-------------|
| (1) The Arlington (Va.) experimental farm—Professor Corbett | \$22,000.00 |
| (2) Study of the conditions favoring the forcing of plants—Professor Corbett | 3,000.00 |
| (3) Truck crop survey—Professor Corbett..... | 4,500.00 |
| (Increase of \$1,000 is desired for the extension of the work.) | |
| (4) Demonstrations of truck growing on rice lands—W. R. Beattie, assistant horticulturist..... | 3,500.00 |
| (Increase of \$500 is desired for the extension of the work.) | |
| (5) Irish-potato trials—Professor Corbett..... | 1,500.00 |
| (6) Sweet-potato investigations—Professor Corbett | 1,000.00 |
| (7) Peanut investigations—W. R. Beattie, assistant horticulturist..... | 1,000.00 |
| (The increase of \$200 is desired for the selection and improvement of seed of standard sorts and for the purchase and distribution of improved stock seed.) | |
| (8) Onion investigations—Professor Corbett..... | 1,000.00 |
| (Increase of \$300 is desired to provide means for starting special improvement in the seed of standard varieties of northern-grown onions, and the investigation of the conditions under which Bermuda onion seed is produced, with a view to their betterment.) | |
| (9) Miscellaneous horticultural investigations—Professor Corbett..... | 2,275.00 |

24. *Sugar-beet investigations.*

[C. O. Townsend, pathologist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$1,840.00 |
| Salaries, lump fund..... | 14,000.00 |
| Stationery, furniture, supplies, etc..... | 150.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 100.00 |
| Traveling and station and field expenses..... | 8,077.00 |
| Total..... | 24,167.00 |

PROJECTS.

| | |
|---|----------|
| (1) Production of single-germ sugar-beet seed..... | 5,200.00 |
| (2) Production of alkali and drought resistant strains of sugar beets | 1,600.00 |
| (3) Improvement of methods of growing sugar beets..... | 2,000.00 |
| (Increase of \$500 is desired for the continuation and extension of the work.) | |
| (4) Improvement of methods of siloing sugar beets..... | 1,700.00 |
| (The increase of \$500 is desired to test the value of fungicides upon beet roots before siloing as a means of preventing decay, to test siloing in sand, to determine the relative value of the pit, the shallow trench, or the elevation as the foundation for the silo and to determine best methods of siloing in different localities, so that beet-seed growing may be extended.) | |
| (5) Study of diseases of the sugar beet and allied plants.. | 3,500.00 |
| (Increase of \$500 is desired for the development and extension of the work.) | |

BUREAU OF PLANT INDUSTRY—Continued.

24. *Sugar-beet investigations*—Continued.

| | |
|--|--------------|
| (6) Selection of sugar beets for increased tonnage and quality..... | \$2, 000. 00 |
| (Increase of \$600 is desired to enable us to cross the stock beet with sugar beets of high sugar content with a view to producing a large beet very rich in sugar, thereby trebling the sugar yield per acre, and to enable us to conduct these experiments in several localities for the purpose of finding, if possible, conditions under which more marked and rapid results may be obtained.) | |
| (7) Selection of sugar beets for early maturity..... | 1, 367. 00 |
| (Increase of \$500 is desired for the normal growth of the work.) | |
| (8) Study of the effect of fertilizers on sugar beets..... | 1, 300. 00 |
| (Increase of \$500 is desired for studying the causes of these differences in order to determine whether certain soils under certain conditions do not allow the fertilizer to become effective, or whether the particular fertilizer tested is not suitable for sugar beets.) | |
| (9) Investigations of the progress of the beet-sugar industry..... | 5, 500. 00 |

25. *Western agricultural extension.*

[Carl S. Scofield, agriculturist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$2, 280. 00 |
| Salaries, lump fund..... | 9, 500. 00 |
| Stationery, furniture, supplies, etc..... | 1, 000. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 500. 00 |
| Traveling and station and field expenses..... | 5, 045. 00 |
| Total..... | 18, 325. 00 |

PROJECTS.

| | |
|--|------------|
| (1) Fallon, Nev., experiment farm..... | 6, 000. 00 |
| (The increase of \$500 is desired for the employment of additional labor to carry on the experiments now under way.) | |
| (2) Yuma, Ariz., experiment farm..... | 5, 000. 00 |
| (The increase of \$500 is desired for the purchase of additional equipment for carrying on the experiments.) | |
| (3) Bellefourche, S. Dak., experiment farm—Mr. Scofield, in cooperation with E. C. Chilcott, agriculturist in charge of dry-land agriculture investigations: This work, which is conducted in cooperation with other offices of the Bureau, consists of experiments with crops and tillage methods on the irrigated portion of the experiment farm at Bellefourche. This farm consists of a tract set aside by the Reclamation Service, a part of which is under irrigation. (The work on the unirrigated portion of the tract is described under dry-land agriculture investigations, post)..... | 4, 325. 00 |
| (Amount allotted for fiscal year 1908, \$3,325.) Results: No irrigation work has been carried on this year. The money allotted has been used for purchasing equipment and for aiding the work on the irrigated portion of the farm. | |

BUREAU OF PLANT INDUSTRY—Continued.

25. *Western agricultural extension*—Continued.

- (4) Minidoka, Idaho, experiment farm:
This work is to be similar to that on the reclamation projects, an agreement having been reached with the Reclamation Service for the assignment of a part of the land on the Minidoka project in southern Idaho..... \$1, 500. 00
- (5) Klamath Falls, Oreg., experiment farm:
The work to be similar to that to be taken up at Minidoka, Idaho. The Reclamation Service has agreed to furnish a part of the land of the Klamath Falls project, located in southern Oregon..... 1, 500. 00

26. *Dry-land agricultural investigations.*

[E. C. Chilcott, agriculturist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$1, 000. 00 |
| Salaries, lump fund..... | 20, 000. 00 |
| Stationery, furniture, supplies, etc..... | 4, 500. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 200. 00 |
| Traveling and station and field expenses..... | 8, 516. 00 |
| Total..... | 34, 216. 00 |

PROJECTS.

- (1) Dickinson project, southwestern North Dakota..... 1, 950. 00
(Increase of \$450 for defraying the additional expense involved in the greater amount and higher quality of the scientific investigation which naturally results from the development of the field work.)
- (2) Williston project, northern North Dakota—Professor Chilcott:
The work planned for on this project is essentially similar to that on the Dickinson project, previously described..... 1, 950. 00
(Amount allotted for fiscal year 1908, \$500.)
Results: Field work on this project has not yet been begun, owing to the failure of the North Dakota Experiment Station to secure suitable land. It is believed that it will be begun early next spring.
(Increase of \$1,450 for defraying the additional expense involved in the greater amount and higher quality of the scientific investigations which naturally result from the development of the field work.)
- (3) Edgeley project, southeastern North Dakota..... 1, 950. 00
(Increase of \$250 for defraying the additional expense involved in the greater amount and higher quality of the scientific investigations which naturally result from the development of the field work.)
- (4) Highmore project, northern South Dakota..... 1, 950. 00
(Increase of \$250 for defraying the additional expense involved in the greater amount and higher quality of the scientific investigations which naturally result from the development of the field work.)
- (5) Bellefourche project, northwestern South Dakota..... 6, 000. 00
(Increase of \$750 for defraying the additional expense involved in the greater amount and quality of the scientific investigations which naturally result from the development of the field work.)

BUREAU OF PLANT INDUSTRY—Continued.

26. *Dry-land agricultural investigations*—Continued.

- | | |
|--|--------------|
| (6) North Platte project, Nebraska..... | \$2, 150. 00 |
| (Increase of \$450 for defraying the additional expense involved in the greater amount and higher quality of scientific investigations which result from the development of the field work.) | |
| (7) Hays project, northern Kansas..... | 1, 950. 00 |
| (Increase of \$250 for defraying the additional expense involved in the greater amount and higher quality of the scientific investigations which naturally result from the development of the field work.) | |
| (8) Garden City project, southwestern Kansas..... | 2, 450. 00 |
| (Increase of \$450 for defraying the additional expense involved in the greater amount and higher quality of the scientific investigations which naturally result from the development of the field work.) | |
| (9) Akron project, northeastern Colorado—Professor Chilcott: | |
| The work on this project is essentially similar to that of the Dickinson project, previously described, except that the experiments are being carried on without the cooperation of the Colorado State Experiment Station. The people of Akron and vicinity have furnished the land and improvements to the value of \$3,000. All teams, tools, implements, and other equipment are provided by this Office..... | |
| | 4, 000. 00 |
| (Amount allotted for fiscal year 1908, \$3,400.) | |
| Results: The funds so far expended have been almost entirely for the salary of the superintendent, for equipment, and for breaking and preparing the land for crops. Some fall planting was done, and the remainder of the tract will be seeded in the spring. | |
| (Increase of \$600 for defraying the additional expense involved in the greater amount and higher quality of the scientific investigations which naturally result from the development of the field work.) | |
| (10) Amarillo project, Texas Panhandle. | 1, 950. 00 |
| (Increase of \$250 for defraying the additional expense involved in the greater amount and higher quality of the scientific investigations which naturally result from the development of the field work.) | |
| (11) Dalhart project, Texas—Professor Chilcott: | |
| The work on this project is essentially similar to that of the Dickinson project, except that the experiments are carried on without the cooperation of the Texas State Experiment Station. The people of Dalhart and vicinity furnished the land and improvements to the amount of \$4,000. All teams, tools, implements, and other equipment are provided by this office..... | |
| | 4, 000. 00 |
| (Amount allotted for fiscal year 1908, \$3,066.) | |
| Results: The funds so far expended have been almost entirely for the salary of the superintendent, for equipment, and for breaking and preparing the land for crops. | |
| (Increase of \$934 for defraying the additional expense involved in the greater amount and quality of the scientific investigations which naturally result from the development of the field work.) | |

BUREAU OF PLANT INDUSTRY—Continued.

26. *Dry-land agricultural investigations*—Continued.

- (12) Judith Basin project, Montana—Professor Chilcott:
 The work of this project is essentially similar to that of the Dickinson project previously described..... \$1,950.00
 (Amount allotted for fiscal year 1908, \$1,500.)
 Results: The land on this project was raw prairie and had to be subdued. Forty acres was broken last spring and has since been backset and prepared for seeding in the spring.
 (Increase of \$450 for defraying the additional expense involved in the greater amount and higher quality of scientific investigations which naturally result from the development of the field work.)
- (13) New project in dry-land agriculture:
 During the fiscal year 1909, it is proposed to establish one new project. At present it seems that the Chadron project is the one most urgently demanded, as the sand-hills district of northern Nebraska and southern South Dakota is not represented in our present scheme. It may be, however, that it will prove even more desirable to establish a station in Oklahoma, New Mexico, or the southern Panhandle of Texas. Wherever established, the work will be substantially the same as the projects already established. The amount necessary to inaugurate work on a new project will be..... 1,966.00

27. *Pomological collections.*

[G. B. Brackett, pomologist in charge.]

| | |
|---|-------------|
| Salaries, statutory..... | \$10,540.00 |
| Salaries, lump fund..... | 6,500.00 |
| Stationery, furniture, supplies, etc..... | 300.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 63.00 |
| Traveling and station and field expenses..... | 80.00 |
| Total | 17,483.00 |

PROJECTS.

- (1) Collection and dissemination of information relating to the fruit industry..... 3,483.00
 (2) Identification and description of fruits..... 3,000.00
 (3) Simplification and purification of fruit nomenclature... 4,000.00
 (4) Modeling and painting of fruits..... 4,000.00
 (5) Cooperative experimental orchard on the Arlington farm..... 3,000.00

28. *Field investigations in pomology.*

[William A. Taylor and G. Harold Powell, pomologists in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$5,160.00 |
| Salaries, lump fund..... | 32,000.00 |
| Stationery, furniture, supplies, etc..... | 14,000.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 500.00 |
| Traveling and station and field expenses..... | 15,926.00 |
| Total..... | 67,586.00 |

PROJECTS.

- (1) Experimental export shipments of fruits..... 5,000.00
 (2) Improvement of methods of packing and handling winter apples..... 5,000.00
 (Increase of \$500 for investigating conditions to which fruit is subjected on shipboard and in foreign markets.)

BUREAU OF PLANT INDUSTRY—Continued.

28. *Field investigations in pomology*—Continued.

| | |
|---|-------------|
| (3) Improvement of methods of packing and shipping California oranges and deciduous fruit..... | \$24,000.00 |
| (Increase of \$2,000 needed for precooling experiments.) | |
| (4) Improvements in transportation of Florida oranges.... | 10,000.00 |
| (Increase of \$1,000 for field expenses in extension of work.) | |
| (5) Improvement of fruit-storage methods..... | 6,000.00 |
| (6) Development of phylloxera-resistant grape stocks and determination of their congeniality to vinifera varieties..... | 4,000.00 |
| (7) Vinifera grape investigations..... | 2,500.00 |
| (8) Rotundifolia grape investigations..... | 2,000.00 |
| (9) Study of miscellaneous viticultural problems..... | 1,500.00 |
| (10) Study of the adaptability of apples and other fruits to different sections..... | 2,800.00 |
| (11) Phenological investigations of fruit culture..... | 1,565.00 |
| (12) Study of the relative merit and adaptability of pecan varieties..... | 2,721.00 |
| (Increase of \$221 for additional field expenses.) | |

29. *Greenhouses, gardens, and grounds.*

[E. M. Byrnes, superintendent.]

| | |
|---|-------------|
| Salaries, statutory..... | \$23,520.00 |
| Salaries, lump fund..... | 8,000.00 |
| Stationery, furniture, supplies, etc..... | 7,000.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 2,220.00 |
| Total..... | 40,740.00 |

PROJECTS.

| | |
|--|-----------|
| (1) General care of Department grounds..... | 12,500.00 |
| (2) Care of greenhouses and collections of plants under glass..... | 10,000.00 |
| (3) Propagation of plants for decorative and other purposes..... | 9,000.00 |
| (4) Repair and construction of greenhouses, etc..... | 9,240.00 |

30. *Seed and plant introduction.*

[David Fairchild, agricultural explorer in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$4,740.00 |
| Salaries, lump fund..... | 15,000.00 |
| Stationery, furniture, supplies, etc..... | 12,000.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 2,500.00 |
| Traveling and station and field expenses..... | 11,350.00 |
| Total..... | 45,590.00 |

PROJECTS.

| | |
|--|-----------|
| (1) General expenses of office of Seed and Plant Introduction..... | 5,660.00 |
| (2) Agricultural explorations in foreign countries..... | 22,100.00 |
| (The increase of \$5,000 is desired for further explorations in northern Siberia. The purpose is to send out again in search of other hardy forage and fruit plants that will be of use in the severe climate of the Northwest. As the climate of Siberia is even more severe and as the things tested from there have proven unusually hardy, the probabilities of getting valuable things is a practical certainty.) | |

BUREAU OF PLANT INDUSTRY—Continued.

30. *Seed and plant introduction*—Continued.

| | |
|--|--------------|
| (3) Grape investigations..... | \$2, 000. 00 |
| (4) Date introductions and date gardens..... | 2, 000. 00 |
| (5) Globe artichoke and chayote introductions..... | 1, 150. 00 |
| (6) Miscellaneous plant introductions..... | 450. 00 |
| (7) Bamboo introduction: | |

The timber bamboos of the Orient are among the most profitable plant cultures of the Orientals. Scattering groves of these plants in America have demonstrated that they will grow in the United States. To prove that they can be grown profitably on land that is not now occupied by crops, such as the "cane brake" lands of the South, is the object of this project. The uses in this country to which bamboos can be put are also being studied, and it is probable that in cooerage, as temporary irrigation pipes, for screens, for vine stalks, for many kinds of furniture, for bean poles, for light handles for orchard tools, etc., they are to play an important part in this country, as they do in all countries where they are grown.....

1, 730. 00

(Amount allotted for fiscal year 1908, \$1,730.)

Results: Early introductions into our plant garden have been growing successfully, and an explorer has been appointed to get up a shipment of the best timber forms and import them the coming spring. Hardier forms than the Japanese have been found in China, drought-resisting forms are ordered from India, and the tropical giant forms are requested by the planters in Porto Rico.

- (8) Mississippi Valley Plant Introduction Garden, Ames, Iowa:

Mr. Fairchild, in cooperation with Mr. S. A. Beach, collaborator. This garden has just been established as a propagating garden where the hardy fruit plants secured by explorers and by correspondence can be multiplied, and from which they can be distributed to the great Mississippi region, where there is a great demand for hardier fruits and where there are a large number of plant breeders who are at the present time trying to develop varieties of hardy fruits which will stand the severe climate of the region.....

1, 000. 00

(Amount allotted for fiscal year 1908, \$1,000.)

Results: Suitable stocks and seedlings have been gotten together, and a search is being started in Central Asia preparatory to sending an explorer there next season after the wild apples, pears, and other fruits known to occur there and believed to be invaluable for breeding experiments.

| | |
|---|------------|
| (9) Introduced grains..... | 2, 000. 00 |
| (10) Matting plant introduction..... | 3, 100. 00 |
| (11) Brewing barley investigations..... | 4, 400. 00 |

31. *Forage crop investigations.*

[C. V. Piper, agrostologist in charge.]

| | |
|---|--------------|
| Salaries, statutory..... | \$3, 600. 00 |
| Salaries, lump fund..... | 18, 000. 00 |
| Stationery, furniture, supplies, etc..... | 6, 595. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 1, 500. 00 |
| Traveling and station and field expenses..... | 6, 000. 00 |
| Total..... | 35, 695. 00 |

BUREAU OF PLANT INDUSTRY—Continued.

31. *Forage crop investigations*—Continued.

PROJECTS.

| | |
|---|------------|
| (1) Alfalfa investigations..... | \$8,880.00 |
| (The \$2,880 increase asked for is to permit the more rapid extension of the two varieties above mentioned; also to push investigations on alfalfa-seed production in the United States.) | |
| (2) Investigations of new and standard grasses..... | 6,500.00 |
| (The increase of \$1,000 is desired for extending the work in breeding grasses.) | |
| (3) Cowpea investigations..... | 2,500.00 |
| (The increase of \$500 is asked for to be used in increase of salary, \$200, and a seed-growing contract, \$300.) | |
| (4) Vetch investigations..... | 2,500.00 |
| (The increase of \$500 is desired for the extension of the work.) | |
| (5) Sorghum investigations..... | 3,000.00 |
| (The \$500 increase is desired for enlarging the acreage for experimenting and for growing seed.) | |
| (6) Adaptation of soy beans to rice lands..... | 2,500.00 |
| (The \$500 additional is desired to grow seed, \$300, and to increase salary, \$200.) | |
| (7) Investigation of forage crops for the cotton boll weevil region..... | 1,700.00 |
| (8) Investigations and tests of miscellaneous forage crops..... | 8,115.00 |
| (The \$620 additional asked for is for increase in salaries, \$320, and seed-growing contracts, \$300.) | |

32. *Vegetable-testing gardens.*

[W. W. Tracy, sr., superintendent.]

| | |
|---|-----------|
| Salaries, statutory..... | \$720.00 |
| Salaries, lump fund..... | 8,000.00 |
| Stationery, furniture, supplies, etc..... | 500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 500.00 |
| Traveling and station and field expenses..... | 1,200.00 |
| Total..... | 10,920.00 |

PROJECTS.

| | |
|---|----------|
| (1) Tests of seed secured for Congressional distribution..... | 3,800.00 |
| (2) Variety tests of commercial vegetables..... | 5,000.00 |
| (3) Special tests of sweet-corn seed..... | 2,120.00 |

33. *Seed distribution.*

[Directed by Chief of Bureau.]

| | |
|---|-------------|
| Salaries, statutory..... | \$22,310.00 |
| Salaries, lump fund..... | 26,000.00 |
| Stationery, furniture, supplies, etc..... | 126,828.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 1,000.00 |
| Rent..... | 4,440.00 |
| Traveling and station and field expenses..... | 2,025.00 |
| Total..... | 182,603.00 |

PROJECTS.

(A) *Regular distribution.*

| | |
|---|------------|
| (1) Vegetable and flower seed distribution..... | 160,000.00 |
| (2) Bulb distribution..... | 5,800.00 |
| (3) Grass-seed distribution..... | 3,000.00 |
| (4) Distribution of grapevines and strawberry plants..... | 3,500.00 |

BUREAU OF PLANT INDUSTRY—Continued.

33. *Seed distribution*—Continued.(B) *Distribution of select varieties of seed.*

| | |
|--|------------|
| (5) Cotton-seed distribution..... | \$5,000.00 |
| (6) Propagation and distribution of sugar-beet seed..... | 4,300.00 |
| (7) Tobacco-seed distribution..... | 500.00 |
| (8) Propagation and distribution of seed of wilt-resistant watermelons..... | 503.00 |

34. *Seed laboratory.*

[Edgar Brown, botanist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$4,000.00 |
| Salaries, lump fund..... | 18,000.00 |
| Stationery, furniture, supplies, etc..... | 2,500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 200.00 |
| Traveling and station and field expenses..... | 1,657.00 |

| | |
|---|-----------|
| Total..... | 26,357.00 |
| (1) Pure-seed investigations..... | 9,000.00 |
| (Increase of \$1,500 for the extension of the work.) | |
| (2) Seed-vitality in investigations..... | 5,000.00 |
| (Increase of \$500 for the extension of the work.) | |
| (3) Seed testing..... | 12,357.00 |
| (Increase of \$3,000 for the extension of the work and the establishment of a cooperative seed-testing laboratory.) | |

35. *Subtropical laboratory and garden, Miami, Fla.*

[Ernst A. Bessey, pathologist in charge.]

| | |
|---|------------|
| Salaries, statutory..... | \$1,000.00 |
| Salaries, lump fund..... | 5,000.00 |
| Stationery, furniture, supplies, etc..... | 400.00 |
| Miscellaneous supplies—freight, express, telephone, etc.. | 300.00 |
| Traveling and station and field expenses..... | 3,000.00 |

| | |
|------------|----------|
| Total..... | 9,700.00 |
|------------|----------|

PROJECT.

| | |
|--|----------|
| Continuance of the work now under way..... | 9,700.00 |
|--|----------|

36. *Plant-introduction garden, Chico, Cal.*

[August Mayer, expert in charge.]

| | |
|---|------------|
| Salaries, lump fund..... | \$7,800.00 |
| Stationery, furniture, supplies, etc..... | 500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 750.00 |
| Traveling, and station and field expenses..... | 280.00 |

| | |
|------------|----------|
| Total..... | 9,330.00 |
|------------|----------|

PROJECT.

| | |
|--|----------|
| (1) Work of the plant-introduction garden..... | 9,330.00 |
|--|----------|

37. *South Texas garden, Brownsville, Tex.*

[E. C. Green, pomologist in charge.]

| | |
|---|------------|
| Salaries, lump fund..... | \$4,500.00 |
| Stationery, furniture, supplies, etc..... | 2,500.00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 300.00 |
| Traveling, and station and field expenses..... | 700.00 |

| | |
|------------|----------|
| Total..... | 8,000.00 |
|------------|----------|

PROJECT.

| | |
|--|----------|
| Continuance of the work now under way..... | 8,000.00 |
|--|----------|

BUREAU OF PLANT INDUSTRY—Continued.

38. *San Antonio, Texas, Experiment Farm.*

[F. B. Headley, superintendent, under the direction of Carl S. Scofield, agriculturist in charge of western agricultural extension.]

| | |
|---|--------------|
| Salaries, lump fund..... | \$3, 500. 00 |
| Stationery, furniture, supplies, etc..... | 200. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 100. 00 |
| Traveling, and station and field expenses..... | 700. 00 |
| Total..... | 4, 500. 00 |

PROJECT.

| | |
|--|------------|
| Continuance of the work now under way..... | 4, 500. 00 |
|--|------------|

39. *Cotton-culture farms and farmers' cooperative demonstration work.*

[S. A. Knapp, special agent in charge.]

| | |
|---|---------------|
| Salaries, lump fund..... | \$50, 000. 00 |
| Stationery, furniture, supplies, etc..... | 800. 00 |
| Miscellaneous expenses—freight, express, telephone, etc.. | 400. 00 |
| Rent..... | 360. 00 |
| Traveling, and station and field expenses..... | 21, 240. 00 |
| Total..... | 72, 800. 00 |

PROJECT.

| | |
|--|-------------|
| Continuance of the work now under way..... | 72, 800. 00 |
|--|-------------|

| | |
|---|-------------------|
| Total of all estimates for the Bureau of Plant Industry for the fiscal year 1909..... | \$1, 317, 676. 00 |
| Total of all appropriations for fiscal year 1907..... | 1, 068, 484. 74 |
| Less amounts available in fiscal year 1908..... | 37, 411. 82 |
| Total net appropriations for fiscal year 1907..... | 1, 031, 072. 92 |
| Total of all appropriations for fiscal year 1908..... | 1, 162, 230. 00 |
| Plus amounts continuing available in fiscal year 1908..... | 37, 411. 82 |
| Entire appropriations for fiscal year 1908 (increase of \$168,568.90). | 1, 199, 641. 82 |
| Total of all estimates for fiscal year 1909 (increase of \$118,034.16)..... | 1, 317, 676. 00 |

OFFICE OF CHAIRMAN OF BUILDING COMMITTEE.

No regular estimate for the fiscal year 1909.

The funds for completing the two segments of the new building now in course of construction have been appropriated and made available, aggregating \$1,500,000.

A separate estimate for the central or administrative segment of the building is to be submitted to the Sixtieth Congress.

PROGRESS OF THE WORK.

[From Eleventh Annual Report of the Secretary of Agriculture, November 23, 1907.]

The work on the new building for the Department has progressed satisfactorily during the year, and it is hoped to occupy the new quarters within the next month or two. As pointed out in my last report, in considering the question of a building, the imperative need for suitable laboratories to carry on the important investigations of the various bureaus and fireproof space for the library was recognized as paramount. The greater part of the indoor work of the Department is conducted in laboratories; hence the absolute necessity for structures that would be well lighted, well ventilated, fireproof, and otherwise well adapted for the purpose. To accomplish these several objects and at the same time to secure opportunities for continued enlargement, the building has been arranged so that extensions could be made in segments as the work required.

OFFICE OF CHAIRMAN OF BUILDING COMMITTEE—Continued.

When the act authorizing the building was passed we could not foresee the rapid growth, by Congressional action, of the Department. On February 3, 1903, when the work was authorized, there were in Washington 1,100 persons employed in the Department of Agriculture. At the present time there are over 2,100—almost double the number on the date when the appropriation was made.

While the original appropriation was so expended as to secure the greatest possible amount of floor space, this floor space is now totally inadequate to care for the increase of almost 100 per cent in the number of employees. Full arrangements have been worked out for the occupancy of the present segments and the relinquishment of the several buildings for which rent is now being paid. The work will be completed within the appropriation made by Congress.

FOREST SERVICE.

[Salaries, Forest Service—\$144,300.]

| | |
|---|--------------|
| One Forester, who shall be Chief of Bureau..... | \$5,000.00 |
| One clerk..... | 2,100.00 |
| One clerk (increase of \$100 submitted)..... | 2,000.00 |
| Six clerks, class 4 (increase of 1 submitted)..... | 10,800.00 |
| Three clerks, at \$1,700 each..... | 5,100.00 |
| One clerk, class 3..... | 1,600.00 |
| Two clerks, at \$1,500 each..... | 3,000.00 |
| Two clerks, class 2..... | 2,800.00 |
| One clerk..... | 1,300.00 |
| Eight clerks, class 1..... | 9,600.00 |
| Seven clerks, at \$1,100 each..... | 7,700.00 |
| Ten clerks, at \$1,000 each (decrease of 1 by transfer to Secretary's roll)..... | 10,000.00 |
| Twelve clerks, at \$900 each..... | 10,800.00 |
| Nineteen clerks, at \$800 each..... | 15,200.00 |
| Twenty-seven clerks, at \$700 each..... | 18,900.00 |
| Eighteen clerks, at \$600 each..... | 10,800.00 |
| One draftsman (increase of \$200 submitted)..... | 2,000.00 |
| Two draftsmen, at \$1,400 each..... | 2,800.00 |
| Two draftsmen, at \$1,200 each..... | 2,400.00 |
| Four draftsmen, at \$1,000 each..... | 4,000.00 |
| One artist..... | 1,000.00 |
| One photographer..... | 1,400.00 |
| One photographer..... | 1,200.00 |
| One photographer..... | 1,000.00 |
| Four messengers, at \$720 each..... | 2,880.00 |
| Two messengers, at \$700 each..... | 1,400.00 |
| Three messengers, at \$600 each..... | 1,800.00 |
| Three messengers, at \$400 each..... | 1,200.00 |
| One carpenter..... | 1,000.00 |
| One carpenter..... | 720.00 |
| Three watchmen, at \$700 each..... | 2,100.00 |
| One electrician..... | 700.00 |
| Total amount estimated..... | \$144,300.00 |

NOTE.—There is an increase in the salary of 1 clerk from \$1,900 to \$2,000, 1 draftsman from \$1,800 to \$2,000, and 1 clerk of class 4 has been added and 1 clerk at \$1,000 has been dropped. Total increase \$1,100.

| | |
|---|-----------|
| Amount of above appropriation for fiscal year 1907..... | \$112,860 |
| Amount of above appropriation for fiscal year 1908 (in- crease of \$30,340)..... | 143,200 |
| Amount estimated for fiscal year 1909 (increase of \$1,100)..... | 144,300 |

Distributed as follows:

Office of the Forester.

General administration:

| | |
|---------------------|----------|
| One Forester..... | \$5,000 |
| One clerk..... | 1,800 |
| One clerk..... | 1,200 |
| | 8,000.00 |
| Law, one clerk..... | 700.00 |

FOREST SERVICE—Continued.

| | |
|--|--------------|
| Dendrology: | |
| One clerk..... | \$1, 100 |
| One artist..... | 1, 000 |
| One clerk..... | 900 |
| One clerk..... | 700 |
| | <hr/> |
| | \$3, 700. 00 |
| Inspection, one clerk..... | 800. 00 |
| <i>Grazing.</i> | |
| Administration, one clerk..... | 800. 00 |
| Permits: | |
| One clerk..... | 1, 100 |
| One clerk..... | 800 |
| One clerk..... | 600 |
| | <hr/> |
| | 3, 300. 00 |
| <i>Silviculture.</i> | |
| Administration, one clerk..... | 1, 100. 00 |
| Extension, supervision, one clerk..... | 1, 200. 00 |
| Silvics: | |
| Supervision, one clerk..... | 700. 00 |
| Library— | |
| One clerk..... | \$1, 100 |
| Two clerks, at \$800..... | 1, 600 |
| One clerk..... | 700 |
| | <hr/> |
| | 3, 400. 00 |
| Management: | |
| Timber sales— | |
| One clerk..... | 1, 700 |
| One clerk..... | 900 |
| One clerk..... | 800 |
| Two clerks, at \$600..... | 1, 200 |
| | <hr/> |
| | 4, 600. 00 |
| Atlas, one clerk..... | 600. 00 |
| <i>Products.</i> | |
| Administration, one clerk..... | 1, 200. 00 |
| Wood utilization: | |
| Computing— | |
| One clerk..... | \$1, 000 |
| One clerk..... | 800 |
| Three clerks, at \$700..... | 2, 100 |
| One clerk..... | 600 |
| | <hr/> |
| | 4, 500. 00 |
| Drafting— | |
| One draftsman..... | 2, 000 |
| Two draftsmen, at \$1,400..... | 2, 800 |
| Two draftsmen, at \$1,200..... | 2, 400 |
| Four draftsmen, at \$1,000..... | 4, 000 |
| One clerk..... | 900 |
| One clerk..... | 800 |
| One clerk..... | 700 |
| One messenger..... | 600 |
| | <hr/> |
| | 14, 200. 00 |
| Wood uses, one clerk..... | 800. 00 |
| Publication, one clerk..... | 700. 00 |
| Printing, one clerk..... | 1, 700. 00 |
| <i>Operation.</i> | |
| Administration, one clerk..... | 2, 000. 00 |
| Organization, supervision: | |
| One clerk..... | \$1, 100 |
| Two clerks, at \$1,000 each..... | 2, 000 |
| One clerk..... | 800 |
| | <hr/> |
| | 3, 900. 00 |

FOREST SERVICE—Continued.

Lands:

| | | |
|------------------------------------|---------|-----------|
| Supervision, one clerk..... | | \$900.00 |
| Boundaries— | | |
| One clerk..... | \$1,000 | |
| One clerk..... | 900 | |
| One clerk..... | 800 | |
| Three clerks, at \$700 each..... | 2,100 | |
| | | 4,800.00 |
| Settlement— | | |
| One clerk..... | 1,200 | |
| One clerk..... | 1,100 | |
| Two clerks, at \$1,000 each..... | 2,000 | |
| One clerk..... | 800 | |
| One clerk..... | 700 | |
| | | 5,800.00 |
| Claims— | | |
| One clerk..... | 1,800 | |
| Two clerks, at \$700 each..... | 1,400 | |
| | | 3,200.00 |
| Status— | | |
| One clerk..... | 1,800 | |
| One clerk..... | 800 | |
| Three clerks, at \$600 each..... | 1,800 | |
| | | 4,400.00 |
| Special uses— | | |
| One clerk..... | 2,100 | |
| One clerk..... | 1,500 | |
| One clerk..... | 1,000 | |
| One clerk..... | 800 | |
| One clerk..... | 700 | |
| | | 6,100.00 |
| Total for the office of lands..... | | 25,200.00 |

Accounts:

| | | |
|------------------------------------|-------|-----------|
| Two clerks, at \$1,800 each..... | 3,600 | |
| One clerk..... | 1,700 | |
| One clerk..... | 1,600 | |
| One clerk..... | 1,500 | |
| Three clerks, at \$1,200 each..... | 3,600 | |
| One clerk..... | 1,000 | |
| Four clerks, at \$900 each..... | 3,600 | |
| Two clerks, at \$800 each..... | 1,600 | |
| Six clerks, at \$700 each..... | 4,200 | |
| | | 22,400.00 |

Maintenance:

| | | |
|--------------------------------|-------|----------|
| Supervision, one clerk..... | | 1,800.00 |
| Supplies— | | |
| One clerk..... | 1,400 | |
| One clerk..... | 800 | |
| One carpenter..... | 720 | |
| Two clerks, at \$700 each..... | 1,400 | |
| | | 4,320.00 |
| Photography— | | |
| One photographer..... | 1,400 | |
| One photographer..... | 1,200 | |
| One photographer..... | 1,000 | |
| One clerk..... | 800 | |
| | | 4,400.00 |

Record—

| | |
|----------------------------------|-------|
| One clerk..... | 1,400 |
| One clerk..... | 1,300 |
| One clerk..... | 1,200 |
| One clerk..... | 1,100 |
| Two clerks, at \$1,000 each..... | 2,000 |
| One carpenter..... | 1,000 |

FOREST SERVICE—Continued.

Maintenance—Continued.

Record—Continued.

| | |
|--------------------------------------|--------------|
| Three clerks, at \$900 each..... | \$2, 700 |
| One clerk..... | 800 |
| Four messengers, at \$720 each..... | 2, 880 |
| Three clerks, at \$700 each..... | 2, 100 |
| Two messengers, at \$700 each..... | 1, 400 |
| Three watchmen, at \$700 each..... | 2, 100 |
| One electrician..... | 700 |
| Ten clerks, at \$600 each..... | 6, 000 |
| Two messengers, at \$600 each..... | 1, 200 |
| Three messengers, at \$400 each..... | 1, 200 |
| | <hr/> |
| | \$29, 080.00 |

Total estimate for fiscal year 1909..... \$144, 300.00

COOPERATIVE WORK—FOREST INVESTIGATIONS.

Approximate estimate..... \$20, 000.00

No classified and detailed estimate can be made at this time, however.

[General expenses, Forest Service, \$3,051,900.]

| | |
|--|----------------|
| Salaries in Washington..... | \$403, 095.00 |
| Salaries outside of Washington..... | 1, 946, 140.00 |
| Stationery..... | 40, 000.00 |
| Miscellaneous supplies, etc..... | 215, 950.00 |
| Furniture and office equipment..... | 22, 000.00 |
| Fuel..... | 600.00 |
| Freight..... | 1, 000.00 |
| Express..... | 4, 000.00 |
| Telegraph..... | 3, 500.00 |
| Telephone..... | 3, 000.00 |
| Rent..... | 50, 000.00 |
| Gas and electricity..... | 500.00 |
| Apparatus, etc..... | 55, 000.00 |
| Travel and station and field expenses..... | 307, 115.00 |
| | <hr/> |

Total amount estimated..... 3, 051, 900.00

Amount of above appropriation for fiscal year 1907..... \$1, 920, 468.66

Amount of above appropriation for fiscal year 1908,
including \$1,020,000, Administration, etc., Forest
Reserves (receipts) (increase of \$856,331.34)..... 2, 776, 800.00

Amount of above appropriation for fiscal year 1909
(increase of \$275,100)..... 3, 051, 900.00

Total estimate of all appropriations for Forest Service for fiscal
year 1909..... 3, 196, 200.00

PROJECTS.

Office of the Forester.

General administration:

| | |
|--------------------------------|------------|
| Salaries..... | 10, 300.00 |
| Field and travel expenses..... | 5, 800.00 |

Law:

| | |
|--------------------------------|------------|
| Salaries..... | 12, 905.00 |
| Field and travel expenses..... | 3, 700.00 |

Dendrology:

| | |
|--|-----------|
| Salaries..... | 7, 400.00 |
| Field, travel, and station expenses..... | 1, 800.00 |

Information:

| | |
|----------------------|-----------|
| Salaries..... | 5, 200.00 |
| Travel expenses..... | 1, 050.00 |

FOREST SERVICE—Continued.

Inspection:

| | | |
|--|-------------|-------------|
| District 1— | | |
| Salaries..... | \$10,800.00 | |
| Field, travel, and station expenses..... | 6,500.00 | |
| District 2— | | |
| Salaries..... | 9,400.00 | |
| Field, travel, and station expenses..... | 5,500.00 | |
| District 3— | | |
| Salaries..... | 9,600.00 | |
| Field, travel, and station expenses..... | 6,500.00 | |
| District 4— | | |
| Salaries..... | 10,100.00 | |
| Field, travel, and station expenses..... | 5,500.00 | |
| District 5— | | |
| Salaries..... | 12,500.00 | |
| Field, travel, and station expenses..... | 6,500.00 | |
| District 6— | | |
| Salaries..... | 9,500.00 | |
| Field, travel, and station expenses..... | 5,500.00 | |
| Total for inspection..... | | \$97,900.00 |

Branch of Grazing.

| | | |
|--------------------------------|--|----------|
| Administration: | | |
| Salaries..... | | 3,200.00 |
| Field and travel expenses..... | | 1,400.00 |
| Control: | | |
| Supervision— | | |
| Salaries..... | | 4,600.00 |
| Field and travel expenses..... | | 2,200.00 |
| Allotment— | | |
| Salaries..... | | 2,200.00 |
| Field and travel expenses..... | | 1,200.00 |
| Adjustment— | | |
| Salaries..... | | 2,000.00 |
| Field and travel expenses..... | | 1,000.00 |
| Permits, salaries..... | | 3,100.00 |
| Development: | | |
| Supervision— | | |
| Salaries..... | | 5,000.00 |
| Field and travel expenses..... | | 2,000.00 |
| Fences— | | |
| Salaries..... | | 2,000.00 |
| Field and travel expenses..... | | 1,000.00 |
| Forage— | | |
| Salaries..... | | 7,000.00 |
| Field and travel expenses..... | | 3,900.00 |
| Water— | | |
| Salaries..... | | 1,500.00 |
| Field and travel expenses..... | | 900.00 |

Branch of Silviculture.

| | | |
|--|--|----------|
| Administration: | | |
| Salaries..... | | 2,400.00 |
| Field and travel expenses..... | | 800.00 |
| Extension: | | |
| Supervision— | | |
| Salaries..... | | 2,200.00 |
| Field and travel expenses..... | | 1,000.00 |
| Planting— | | |
| Salaries..... | | 6,700.00 |
| Field, travel, and station expenses..... | | 5,900.00 |
| Reconnoissance— | | |
| Salaries..... | | 5,400.00 |
| Field and travel expenses..... | | 3,600.00 |

FOREST SERVICE—Continued.

Extension—Continued.

Cooperation—

| | |
|--|--------------|
| Salaries..... | \$5, 600. 00 |
| Field, travel, and station expenses..... | 4, 400. 00 |

Silvics:

Supervision—

| | |
|--------------------------------|------------|
| Salaries..... | 2, 000. 00 |
| Field and travel expenses..... | 820. 00 |

Field studies—

| | |
|--------------------------------|------------|
| Salaries..... | 8, 280. 00 |
| Field and travel expenses..... | 5, 100. 00 |

Library, purchase of books for branch libraries in the field.....

2, 000. 00

Compilation—

| | |
|--------------------------------|------------|
| Salaries..... | 1, 200. 00 |
| Field and travel expenses..... | 500. 00 |

Management:

Supervision—

| | |
|--------------------------------|------------|
| Salaries..... | 4, 900. 00 |
| Field and travel expenses..... | 2, 000. 00 |

Cooperation—

| | |
|--------------------------------|------------|
| Salaries..... | 7, 050. 00 |
| Field and travel expenses..... | 4, 025. 00 |

Timber sales—

| | |
|--------------------------------|-------------|
| Salaries..... | 55, 300. 00 |
| Field and travel expenses..... | 31, 875. 00 |

Reconnaissance—

| | |
|--------------------------------|------------|
| Salaries..... | 7, 600. 00 |
| Field and travel expenses..... | 6, 050. 00 |

Atlas—

| | |
|--------------------------------|------------|
| Salaries..... | 1, 700. 00 |
| Field and travel expenses..... | 3, 000. 00 |

Administration:

Branch of Products.

| | |
|--------------------------------|------------|
| Salaries..... | 3, 000. 00 |
| Field and travel expenses..... | 800. 00 |

Wood utilization:

Supervision—

| | |
|--------------------------------|------------|
| Salaries..... | 3, 000. 00 |
| Field and travel expenses..... | 1, 000. 00 |

Drafting, salaries.....

10, 800. 00

Computing—

| | |
|----------------------|------------|
| Salaries..... | 6, 600. 00 |
| Travel expenses..... | 900. 00 |

Wood chemistry—

| | |
|--|------------|
| Salaries..... | 6, 600. 00 |
| Field, travel, and station expenses..... | 5, 400. 00 |

Wood uses—

| | |
|--|-------------|
| Salaries..... | 27, 400. 00 |
| Field, travel, and station expenses..... | 12, 800. 00 |

Wood preservation:

| | |
|--|-------------|
| Salaries..... | 18, 400. 00 |
| Field, travel, and station expenses..... | 4, 600. 00 |

Publication:

Supervision—

| | |
|----------------------|------------|
| Salaries..... | 2, 900. 00 |
| Travel expenses..... | 600. 00 |

Articles—

| | |
|----------------------|------------|
| Salaries..... | 3, 600. 00 |
| Travel expenses..... | 800. 00 |

Education—

| | |
|----------------------|------------|
| Salaries..... | 3, 800. 00 |
| Travel expenses..... | 800. 00 |

Review—

| | |
|----------------------|------------|
| Salaries..... | 1, 000. 00 |
| Travel expenses..... | 600. 00 |

| | |
|-----------------------------|------------|
| Distribution, salaries..... | 1, 500. 00 |
|-----------------------------|------------|

FOREST SERVICE—Continued.

Branch of Operation.

| | | |
|--|-----------------|-----------------|
| Administration: | | |
| Salaries..... | | \$3, 000. 00 |
| Travel expenses..... | | 700. 00 |
| Organization: | | |
| Supervision— | | |
| Salaries..... | | 7, 000. 00 |
| Travel expenses..... | | 8, 000. 00 |
| Administration, protection, and improvement of the national forests— | | |
| Alaska— | | |
| Salaries..... | \$17, 280. 04 | |
| General expenses..... | 7, 740. 69 | |
| Arizona— | | |
| Salaries..... | 150, 146. 36 | |
| General expenses..... | 12, 690. 69 | |
| California— | | |
| Salaries..... | 313, 249. 40 | |
| General expenses..... | 26, 793. 82 | |
| Colorado— | | |
| Salaries..... | 210, 320. 00 | |
| General expenses..... | 20, 177. 50 | |
| Idaho— | | |
| Salaries..... | 234, 961. 00 | |
| General expenses..... | 19, 215. 63 | |
| Kansas. general expenses..... | 1, 047. 95 | |
| Minnesota— | | |
| Salaries..... | 11, 600. 00 | |
| General expenses..... | 4, 000. 00 | |
| Montana— | | |
| Salaries..... | 270, 990. 48 | |
| General expenses..... | 24, 171. 60 | |
| Nebraska— | | |
| Salaries..... | 7, 799. 36 | |
| General expenses..... | 7, 436. 88 | |
| Nevada— | | |
| Salaries..... | 28, 904. 40 | |
| General expenses..... | 4, 169. 48 | |
| New Mexico— | | |
| Salaries..... | 115, 654. 92 | |
| General expenses..... | 14, 494. 18 | |
| Oklahoma— | | |
| Salaries..... | 5, 462. 78 | |
| General expenses..... | 369. 19 | |
| Oregon— | | |
| Salaries..... | 164, 877. 00 | |
| General expenses..... | 14, 259. 12 | |
| South Dakota— | | |
| Salaries..... | 30, 824. 00 | |
| General expenses..... | 2, 284. 25 | |
| Utah— | | |
| Salaries..... | 106, 093. 00 | |
| General expenses..... | 10, 436. 63 | |
| Washington— | | |
| Salaries..... | 116, 119. 00 | |
| General expenses..... | 10, 213. 00 | |
| Wyoming— | | |
| Salaries..... | 99, 952. 68 | |
| General expenses..... | 8, 893. 97 | |
| Total salaries..... | 1, 884, 240. 42 | |
| Total general expenses..... | 188, 394. 58 | |
| Total national forests..... | | 2, 072, 635. 00 |

FOREST SERVICE—Continued.

| | | |
|---|-------------|------------------------|
| Engineering: | | |
| Salaries..... | | \$5,000.00 |
| Field and travel expenses | | 2,400.00 |
| Lands: | | |
| Supervision— | | |
| Salaries..... | | 2,500.00 |
| Travel expenses..... | | 500.00 |
| Boundaries— | | |
| Salaries..... | | 40,300.00 |
| Field and travel expenses..... | | 24,000.00 |
| Settlement, salaries..... | | 1,100.00 |
| Claims— | | |
| Salaries..... | | 3,200.00 |
| Field and travel expenses..... | | 50,000.00 |
| Status, salaries..... | | 2,100.00 |
| Special uses— | | |
| Salaries..... | | 4,500.00 |
| Travel expenses..... | | 1,200.00 |
| Accounts, salaries..... | | 13,000.00 |
| Maintenance: | | |
| Purchase, salaries..... | | 1,500.00 |
| Supplies— | | |
| Salaries..... | | 5,820.00 |
| Furniture and office equipment..... | \$22,000.00 | |
| Stationary and expendable office equipment..... | 40,000.00 | |
| Field equipment, etc..... | 25,000.00 | |
| Field instruments..... | 30,000.00 | |
| Law books..... | 500.00 | |
| | | 117,500.00 |
| Photography— | | |
| Salaries..... | | 3,480.00 |
| Equipment..... | | 550.00 |
| Supplies..... | | 4,000.00 |
| Record— | | |
| Salaries..... | | 38,260.00 |
| Rent..... | | 25,000.00 |
| Supplies..... | | 4,000.00 |
| Miscellaneous— | | |
| Telephone..... | \$600.00 | |
| Telegraph..... | 3,500.00 | |
| Freight..... | 1,000.00 | |
| Express..... | 4,000.00 | |
| Advertising..... | 6,000.00 | |
| | | 15,100.00 |
| General contingent fund..... | | 100,000.00 |
| Grand total..... | | 3,051,900.00 |
| Total appropriations for the Forest Service for the fiscal year 1907, \$2,089,940.71 (less amount available in fiscal year 1908, \$134,908.57) .. | | 1,955,032.14 |
| Total appropriations for administrative purposes for fiscal year 1908, \$1,900,000 (plus balance on June 30, 1907, of \$1,020,000 remaining under administration, etc., forest reserves, receipts, but omitting the balance remaining on June 30, 1907, of the \$500,000 for the administration, protection, and improvement of the national forests; also the balance remaining of the \$25,000 appropriated for survey and report on Appalachian and White Mountain watersheds) (increase of \$964,967.86)..... | | 2,920,000 |
| Total estimate of appropriations for fiscal year 1909 (increase of \$276,200) .. | | ^a 3,196,200 |

^a A separate estimate is to be submitted for such money as may be necessary for the administration, protection, and development of the national forests.

FOREST SERVICE—Continued.

DETAILED RECEIPTS FOR THE FISCAL YEAR ENDING JUNE 30, 1907, DEPOSITED TO THE CREDIT OF THE APPROPRIATION: ADMINISTRATION, ETC., OF FOREST RESERVES.

| National forest. | Timber sale. | Timber settlement. | Timber trespass. | Grazing. | Special privilege. | Total. |
|------------------------------|--------------|--------------------|------------------|-----------|--------------------|------------|
| ALASKA. | | | | | | |
| Alexander Archipelago..... | \$3,162.85 | \$16.29 | \$112.50 | | \$379.88 | \$3,671.52 |
| ARIZONA. | | | | | | |
| Baboquivari..... | | | | \$444.50 | | 444.50 |
| Black Mesa..... | 1,436.75 | | 59.70 | 18,375.54 | 578.85 | 20,450.84 |
| Chiricahua..... | 2,186.34 | | | 743.40 | 44.80 | 2,974.54 |
| Dragoon..... | | | 3.00 | | | |
| Grand Canyon (N.)..... | 227.00 | | | 3,047.23 | | 3,277.23 |
| Grand Canyon (S.)..... | 140.00 | | | 2,504.95 | 521.00 | 3,165.95 |
| Huachuca..... | 1,475.56 | | 2,829.63 | 2,695.01 | 31.00 | 7,031.20 |
| Mount Graham..... | 2,781.92 | | 5.00 | 597.81 | 61.87 | 3,446.60 |
| Pinal Mountains..... | 385.10 | | | 200.05 | 80.50 | 665.65 |
| Prescott..... | 2,760.02 | | | 1,494.89 | 209.50 | 4,464.71 |
| San Francisco Mountains..... | 94,063.40 | | 2.00 | 20,331.94 | 1,121.00 | 115,518.34 |
| Santa Catalina..... | 2.00 | | | 213.93 | 26.50 | 242.73 |
| Santa Rita..... | 70.00 | | | 1,870.12 | 87.39 | 202,027.51 |
| Tonto..... | 92.00 | | | 8,866.57 | 110.50 | 9,069.07 |
| Tumacacori..... | 70.00 | | 78.75 | 350.15 | | 498.90 |
| Total..... | 105,690.09 | | 2,978.08 | 61,736.09 | 2,873.51 | 173,277.77 |
| Refund..... | | | | | | 198.50 |
| Net total..... | | | | | | 173,079.27 |
| CALIFORNIA. | | | | | | |
| Diamond Mountains..... | 150.00 | 228.23 | | 5,233.50 | 10.00 | 5,621.73 |
| Klamath..... | 2,427.08 | 5.00 | 449.90 | 2,873.66 | 195.33 | 5,950.97 |
| Lassen Peak..... | 10.00 | | 197.80 | 5,178.80 | 34.00 | 5,420.60 |
| Modoc..... | | | | 2,530.50 | 1,108.50 | 3,639.30 |
| Monterey..... | | | | 232.55 | | 232.55 |
| Pinnacles..... | | | | 20.00 | | 20.00 |
| Plumas..... | 1,841.15 | 170.37 | 30.75 | 2,722.81 | 33.00 | 4,798.08 |
| San Bernardino..... | 3,447.00 | 220.32 | 51.75 | 761.38 | 519.50 | 4,999.95 |
| San Gabriel..... | 44.75 | | 1.00 | 238.90 | 853.50 | 1,138.15 |
| San Jacinto..... | 10.00 | | 5.75 | 452.45 | 57.00 | 525.20 |
| San Luis Obispo..... | | | | 681.60 | | 681.60 |
| Santa Barbara..... | 2,536.85 | | 100.00 | 4,507.60 | 545.15 | 7,689.60 |
| Shasta..... | 5,243.04 | | 185.21 | 4,298.39 | 25.00 | 9,751.64 |
| Sierra (N.)..... | 23,185.43 | 229.00 | 130.53 | 8,166.57 | 1,589.18 | 33,300.71 |
| Sierra (S.)..... | 2,953.81 | 165.25 | 20.10 | 8,550.05 | 1,060.32 | 12,749.53 |
| Sierra (E.)..... | 110.00 | | | | | 110.00 |
| Stanislaus..... | 5,150.00 | 3,866.00 | 12.50 | 11,524.20 | 1,381.20 | 21,934.00 |
| Stony Creek..... | | | | 7,627.17 | | 7,627.17 |
| Tahoe..... | 4,048.18 | 1,250.00 | 2,357.68 | 7,135.63 | 264.00 | 15,055.49 |
| Trabuco Canyon..... | | | | 148.60 | 20.00 | 168.60 |
| Trinity..... | 8.00 | 3,071.06 | 4,628.47 | 4,890.21 | 139.50 | 12,737.24 |
| Warner Mountains..... | 1,679.65 | 160.00 | 23.70 | 4,915.53 | 121.40 | 6,900.33 |
| Yuba..... | 620.04 | 15.75 | 179.36 | 6.25 | 20.00 | 841.40 |
| Total..... | 53,464.98 | 9,380.98 | 8,374.50 | 82,696.50 | 7,976.88 | 161,893.84 |
| Refund..... | | | | | | 1,250.96 |
| Net total..... | | | | | | 160,642.88 |
| COLORADO. | | | | | | |
| Battlement Mesa..... | 326.55 | 242.96 | 3.60 | 8,491.55 | 206.55 | 9,271.21 |
| Cochetopa..... | 5,135.06 | 27.31 | | 8,003.21 | 50.00 | 13,220.58 |
| Fruita..... | | | | 126.60 | | 126.60 |
| Gunnison..... | 4,125.95 | | 701.25 | 4,020.45 | 152.55 | 9,000.20 |
| Holy Cross..... | 19,182.02 | 100.00 | 229.05 | 6,499.65 | 160.25 | 26,170.97 |
| La Sal..... | 50.00 | | 58.00 | 135.70 | 24.50 | 268.20 |
| Las Animas..... | 50.00 | | | | | 50.00 |
| Leadville..... | 8,380.85 | 70.05 | 334.28 | 5,699.45 | 84.00 | 14,568.63 |
| Medicine Bow..... | 2,395.20 | 686.39 | 51.21 | 1,829.40 | 296.40 | 5,258.60 |
| Montezuma..... | 2,719.17 | 5.00 | 275.17 | 5,616.91 | 143.50 | 8,759.75 |
| Ouray..... | 100.00 | | 222.58 | 2,248.80 | | 2,571.38 |
| Park Range..... | 473.92 | | 130.74 | 2,940.00 | 352.00 | 3,896.66 |
| Pikes Peak..... | 15,699.17 | 1,541.50 | 1,149.43 | 7,165.22 | 732.13 | 26,287.55 |
| San Isabel..... | 712.55 | | 2.00 | 1,579.51 | 23.50 | 2,317.56 |
| San Juan..... | 3,244.37 | 103.50 | 523.70 | 15,978.55 | 91.00 | 19,741.12 |
| Uncompahgre..... | 719.50 | | .75 | 6,101.70 | 336.20 | 7,158.15 |
| Wet Mountains..... | 223.75 | | 41.20 | 1,885.80 | 77.45 | 2,223.20 |
| White River..... | 2,168.03 | 4.00 | 5.60 | 6,834.60 | 51.30 | 9,063.53 |
| Total..... | 65,706.14 | 2,780.71 | 3,528.56 | 85,162.20 | 2,781.33 | 159,958.94 |
| Refund..... | | | | | | 2,042.25 |
| Net total..... | | | | | | 157,916.69 |

FOREST SERVICE—Continued.

DETAILED RECEIPTS FOR THE FISCAL YEAR ENDING JUNE 30, 1907, DEPOSITED TO THE CREDIT OF THE APPROPRIATION: ADMINISTRATION, ETC., OF FOREST RESERVES—CON.

| National forest. | Timber sale. | Timber settlement. | Timber trespass. | Grazing. | Special privilege. | Total. |
|-----------------------------------|--------------|--------------------|------------------|------------|--------------------|-------------|
| IDAHO. | | | | | | |
| Bear River..... | \$4,263.19 | | \$407.47 | \$9,721.25 | | \$14,391.91 |
| Bitter Root..... | 1,123.75 | | 100.00 | 1,498.50 | \$65.50 | 2,787.75 |
| Big Hole..... | | | | | | |
| Caribou..... | 20.00 | | | 27,343.87 | | 27,363.87 |
| Cabinet..... | | | | | | |
| Cassia..... | 5.00 | | | 4,100.80 | 10.40 | 4,116.20 |
| Coeur d'Alene..... | 5,877.06 | 25.00 | 2,048.45 | 7.60 | 10.00 | 7,968.11 |
| Henrys Lake..... | 8,766.02 | 779.65 | | 9,904.67 | 99.83 | 19,550.17 |
| Kootenai..... | | | | 43.00 | | 43.00 |
| Lemhi..... | 319.25 | | 142.31 | 5,542.40 | | 6,003.96 |
| Palouse..... | | | | | | |
| Payette..... | 4.25 | | 2.50 | 9,519.91 | 111.00 | 9,637.66 |
| Port Neuf..... | | | | | | |
| Pocatello..... | | | 55.14 | 72.20 | | 227.34 |
| Priest River..... | 121.46 | 47.66 | | 17.70 | | 186.82 |
| Raft River..... | 325.00 | | | 2,243.70 | 1.00 | 2,569.70 |
| Salmon River..... | 131.50 | | 587.45 | 5,067.90 | | 5,786.85 |
| Sawtooth..... | 26,183.72 | | 243.72 | 43,321.80 | 110.27 | 69,859.51 |
| Weiser..... | 7,365.11 | | 1,231.85 | 14,624.18 | 69.25 | 23,340.39 |
| Yellowstone (Teton)..... | 665.00 | | 4,355.19 | 4,355.19 | | 5,023.19 |
| Total..... | 55,173.31 | 852.31 | 4,968.89 | 137,384.67 | 477.25 | 198,856.43 |
| Refund..... | | | | | | 2,939.86 |
| Net total..... | | | | | | 195,916.57 |
| KANSAS. | | | | | | |
| Garden City..... | | | | 1,193.93 | | 1,193.93 |
| MONTANA. | | | | | | |
| Big Belt..... | 4,179.84 | 154.88 | 679.82 | 11,625.35 | 147.75 | 16,787.62 |
| Big Hole (N.)..... | 102.75 | | 1,466.79 | 8,670.80 | | 10,240.34 |
| Big Hole (S.)..... | 6.05 | | 21.72 | 8,531.80 | | 8,559.57 |
| Big Hole (Anaconda Division)..... | | | | | | |
| Bitter Root..... | 9,050.00 | 1,160.15 | 21.32 | 76.00 | | 10,307.47 |
| Cabinet (S.)..... | 13.00 | | 55.43 | | | 68.43 |
| Crazy Mountains..... | 20.00 | | 535.20 | 6,761.18 | 31.60 | 7,347.98 |
| Elkhorn..... | 986.79 | | 452.49 | 1,831.51 | | 3,270.79 |
| Ekalaka..... | 138.71 | | 156.90 | 105.55 | | 401.16 |
| Gallatin..... | 8,159.97 | | 499.07 | 3,863.38 | 62.20 | 12,584.62 |
| Helena..... | 9,027.74 | | 12,926.12 | 5,602.30 | 210.55 | 27,766.71 |
| Hell Gate..... | 19,429.32 | 486.25 | 5,582.44 | 6,317.12 | 209.90 | 32,025.03 |
| Highwood Mountains..... | | | | 1,563.20 | | 1,563.20 |
| Kootenai..... | | | | 55.35 | | 55.35 |
| Lewis and Clark (N.)..... | 23,780.16 | | | 91.95 | 119.75 | 23,991.86 |
| Lewis and Clark (S.)..... | 25,564.00 | | 2.00 | 2,045.30 | 118.00 | 27,729.30 |
| Little Belt..... | 5,047.12 | | 439.44 | 8,797.80 | 5.00 | 14,289.36 |
| Lolo..... | 432.77 | | 588.26 | 9.35 | | 1,030.38 |
| Long Pine..... | 716.39 | | 261.03 | 421.40 | 33.50 | 1,432.92 |
| Little Rockies..... | | | | | | |
| Madison..... | 1,124.60 | 11.53 | 24.50 | 10,467.32 | 136.48 | 11,764.43 |
| Missoula..... | | | 60.93 | | | 60.93 |
| Otter..... | | | 140.00 | | 140.00 | 140.00 |
| Pryor Mountains..... | 12.30 | | | 2,275.78 | | 2,288.08 |
| Snowy Mountains..... | 300.00 | | 408.72 | 849.55 | | 1,558.27 |
| Yellowstone (Absaroka)..... | 4,880.09 | 55.50 | 670.85 | 2,513.50 | 241.47 | 8,361.41 |
| Total..... | 112,971.60 | 1,868.29 | 24,993.63 | 82,475.49 | 1,316.20 | 223,625.21 |
| Refund..... | | | | | | 17,071.02 |
| Net total..... | | | | | | 206,554.19 |
| NEBRASKA. | | | | | | |
| Dismal River..... | | | | 756.50 | | 756.50 |
| Niobrara..... | | | | 1,365.75 | | 1,365.75 |
| North Platte..... | | | | 8,015.25 | 38.80 | 8,054.05 |
| Total..... | | | | 10,137.50 | 38.80 | 10,176.30 |
| Refund..... | | | | | | .20 |
| Net total..... | | | | | | 10,176.10 |
| NEVADA. | | | | | | |
| Charleston..... | | | 9,518.40 | 21.00 | | 9,539.40 |
| Independence..... | | | | 4,636.70 | | 4,636.70 |
| Ruby Mountains..... | 20.00 | | | 5,358.65 | | 5,378.65 |

FOREST SERVICE—Continued.

DETAILED RECEIPTS FOR THE FISCAL YEAR ENDING JUNE 30, 1907, DEPOSITED TO THE CREDIT OF THE APPROPRIATION: ADMINISTRATION, ETC., OF FOREST RESERVES—CON.

| National forest. | Timber sale. | Timber settlement. | Timber trespass. | Grazing. | Special privilege. | Total. |
|--------------------------------------|--------------|--------------------|------------------|------------|--------------------|------------|
| NEVADA—continued. | | | | | | |
| Tahoe..... | \$410.86 | | \$293.98 | \$1,080.17 | | \$1,785.01 |
| Toiyobe..... | | | | | | |
| Total..... | 430.86 | | 9,812.38 | 11,096.52 | | 21,339.76 |
| Refund..... | | | | | | |
| Net total..... | | | | | | 21,339.76 |
| NEW MEXICO. | | | | | | |
| Big Burros..... | 1,284.00 | | 1,328.67 | 2,440.58 | | 5,053.25 |
| Gallinas..... | 400.00 | | 204.75 | 81.35 | | 686.10 |
| Gila (N. and S.)..... | 18,111.66 | | 761.72 | 20,582.83 | \$542.40 | 39,998.61 |
| Guadalupe..... | 8.65 | | 41.55 | | | 50.20 |
| Jemez..... | 6,017.50 | \$15.00 | 21.31 | 22,508.83 | 43.50 | 28,606.14 |
| Lincoln..... | 266.85 | | 1,032.43 | 5,749.22 | 212.40 | 7,260.90 |
| Las Animas..... | | | | | | |
| Magdalena..... | 104.00 | | 62.10 | 2,349.40 | | 2,515.50 |
| Manzano..... | 50.00 | | | 2,484.96 | 3.50 | 2,538.46 |
| Mount Taylor..... | | | | 130.65 | | 130.65 |
| Pecos River..... | 1,990.30 | | | 810.84 | 22.30 | 2,823.44 |
| Peloncillo..... | | | | 1,328.45 | | 1,328.45 |
| Portales..... | | | | 142.80 | | 142.80 |
| San Mateo..... | 1,444.65 | | 2,147.45 | 2,845.78 | 12.80 | 6,450.08 |
| Taos..... | 50.00 | | 45.00 | 1,027.99 | | 1,122.99 |
| Total..... | 29,727.01 | 15.00 | 5,644.98 | 62,483.68 | 836.90 | 98,707.57 |
| Refund..... | | | | | | 2,566.99 |
| Net total..... | | | | | | 96,140.58 |
| OKLAHOMA. | | | | | | |
| Wichita..... | 76.90 | | | 1,115.85 | 62.25 | 1,255.00 |
| OREGON. | | | | | | |
| Ashland..... | | | | | | |
| Blue Mountains (E.)..... | 1,808.28 | 1,542.28 | 1,967.65 | 21,258.19 | 475.55 | 27,051.95 |
| Blue Mountains (W.)..... | 214.10 | | 32.00 | 32,804.20 | 52.00 | 33,102.30 |
| Bull Run..... | | | | | | |
| Cascade (N.)..... | 10,522.60 | 918.88 | 100.00 | 7,098.89 | 101.00 | 18,741.37 |
| Cascade (S.)..... | 490.50 | 50.00 | | 6,075.99 | 319.00 | 6,935.49 |
| Coquille..... | | | | | | |
| Fremont..... | 93.55 | | | 4,317.70 | 56.12 | 4,467.37 |
| Goose Lake..... | 48.63 | | | 11,550.74 | 18.00 | 11,617.37 |
| Heppner..... | | | | 8,130.97 | | 8,130.97 |
| Imnaha (Chesnimnus and Wallowa)..... | 1,163.15 | 151.43 | 742.42 | 20,694.66 | 36.20 | 22,787.86 |
| Maury Mountains..... | 351.26 | | | 413.68 | 10.00 | 774.94 |
| Siskiyou..... | | | 60.11 | 429.80 | | 489.91 |
| Tillamook..... | | | | | | |
| Umpqua..... | | | | | | |
| Wenaha..... | 104.50 | | | 6,939.05 | 50.00 | 7,093.55 |
| Total..... | 14,796.57 | 2,662.59 | 2,902.18 | 119,713.87 | 1,117.87 | 141,193.08 |
| Refund..... | | | | | | 1,384.17 |
| Net total..... | | | | | | 139,808.91 |
| SOUTH DAKOTA. | | | | | | |
| Black Hills..... | 23,171.42 | 207.08 | 349.74 | 3,128.80 | 332.80 | 27,189.84 |
| Cave Hills..... | | | | 101.86 | 10.00 | 111.86 |
| Short Pine..... | | | | 106.09 | 12.00 | 118.09 |
| Slim Buttes..... | | | | 160.66 | 26.00 | 186.66 |
| Total..... | 23,171.42 | 207.08 | 349.74 | 3,497.41 | 380.80 | 27,606.45 |
| Refund..... | | | | | | 84.19 |
| Net total..... | | | | | | 27,522.26 |
| UTAH. | | | | | | |
| Aquarius..... | 148.00 | | | 6,328.00 | 17.50 | 6,493.50 |
| Bear River..... | 81.75 | | | 3,896.15 | | 3,977.90 |
| Beaver..... | 1,530.15 | | | 4,108.36 | | 5,638.51 |
| Dixie..... | 245.25 | | | 1,675.85 | 6.00 | 1,927.10 |
| Fillmore..... | 349.50 | | | 4,050.21 | | 4,399.79 |
| Fish Lake..... | 306.00 | | 12.50 | 4,856.15 | 8.00 | 5,182.65 |

FOREST SERVICE—Continued.

DETAILED RECEIPTS FOR THE FISCAL YEAR ENDING JUNE 30, 1907, DEPOSITED TO THE CREDIT OF THE APPROPRIATION: ADMINISTRATION, ETC., OF FOREST RESERVES—CON.

| National forest. | Timber sale. | Timber settlement. | Timber trespass. | Grazing. | Special privilege. | Total. |
|--------------------------|--------------|--------------------|------------------|------------|--------------------|------------------------|
| UTAH—continued. | | | | | | |
| Glenwood..... | \$42.00 | | \$10.77 | \$2,313.45 | | \$2,366.22 |
| Grantsville..... | | | | 653.85 | | 653.85 |
| La Sal..... | 300.80 | | | 2,490.05 | \$15.00 | 2,805.85 |
| Manti..... | 6,080.33 | | | 24,971.82 | 44.50 | 31,096.65 |
| Monticello..... | | | | 6,751.50 | | 6,751.50 |
| Payson..... | 30.00 | | | 2,711.93 | | 2,741.93 |
| Raft River..... | | | | 3,126.04 | | 3,126.04 |
| Salt Lake..... | 278.45 | | 5.40 | 181.60 | 395.20 | 860.75 |
| Sevier..... | 377.35 | | | 11,660.93 | 3.00 | 12,041.28 |
| Uinta..... | 14,476.46 | | 136.37 | 40,021.48 | 25.60 | 54,659.91 |
| Vernon..... | | | | 406.70 | | 406.70 |
| Wasatch..... | 202.00 | | | 2,156.77 | 30.00 | 2,388.77 |
| Total..... | 24,448.04 | | 135.04 | 122,360.84 | 544.90 | 147,518.82 |
| Refund..... | | | | | | ^a 11,945.02 |
| Net total..... | | | | | | 135,573.80 |
| WASHINGTON. | | | | | | |
| Colville..... | | | | | | |
| Olympic..... | 1,179.00 | | 5.50 | 12.90 | 242.50 | 1,439.90 |
| Priest River..... | | | | | | |
| Rainier..... | 7,229.86 | | 16.45 | 5,209.88 | 57.53 | 12,513.72 |
| Washington (E.)..... | 2,323.73 | \$29.00 | 850.82 | 3,123.66 | 500.00 | 6,826.21 |
| Washington (W.)..... | 11,251.30 | | 307.13 | 137.50 | 17.00 | 11,712.93 |
| Washington (Yakima)..... | 75.00 | | | | | 75.00 |
| Wenaha..... | 250.00 | | | 5,037.75 | 10.00 | 5,297.75 |
| Total..... | 22,308.89 | 28.00 | 1,179.90 | 13,521.69 | 827.03 | 37,865.51 |
| Refund..... | | | | | | 550.00 |
| Net total..... | | | | | | 37,315.51 |
| WYOMING. | | | | | | |
| Big Horn..... | 38,640.00 | | | 11,690.48 | 58.00 | 50,388.48 |
| Bear Lodge..... | 25.00 | | | | | 25.00 |
| Black Hills..... | 475.46 | | 53.00 | 50.80 | | 579.26 |
| Caribou..... | 10.00 | | | 1,955.40 | | 1,965.40 |
| Crow Creek..... | | | | 558.50 | | 558.50 |
| Medicine Bow..... | 33,048.69 | | 109.90 | 5,045.85 | 6.40 | 38,210.84 |
| Sierra Madre..... | 1,720.44 | | 944.23 | 19,398.54 | 18.80 | 22,082.01 |
| Uinta..... | | | | 112.80 | | 112.80 |
| Yellowstone (Sho.)..... | 10,816.00 | | | 7,356.41 | 177.55 | 18,349.96 |
| Yellowstone (Teton)..... | 373.87 | | 403.94 | 16,480.60 | 51.50 | 17,309.91 |
| Yellowstone (W. R.)..... | 6,321.05 | | | 6,966.10 | 50.00 | 13,337.15 |
| Total..... | 91,430.51 | | 1,511.07 | 69,615.48 | 362.25 | 162,919.31 |
| Refund..... | | | | | | 704.40 |
| Net total..... | | | | | | 162,214.91 |
| Grand total..... | 602,564.42 | 17,811.25 | 66,436.45 | 863,920.32 | 20,326.00 | 1,571,059.44 |
| Refund..... | | | | | | 40,737.56 |
| Net total..... | | | | | | 1,530,321.88 |

^a Includes \$8,185.70 refund to Uinta Indians.

The receipts for the fiscal year 1908 are estimated at not less than \$2,000,000.

NOTE.—All receipts subsequent to July 1, 1907, are deposited in the Treasury to the credit of "Miscellaneous receipts."

BUREAU OF CHEMISTRY.

[Salaries, Bureau of Chemistry, \$66,720.]

| | |
|--|------------|
| One chemist, who shall be chief of bureau..... | \$5,000.00 |
| One chief clerk (increase of \$200 submitted)..... | 1,800.00 |
| Two clerks, class 4 (increase of 1 submitted)..... | 3,600.00 |
| Four clerks, class 3 (increase of 2 submitted)..... | 6,400.00 |
| Six clerks, class 2 (increase of 2 submitted)..... | 8,400.00 |
| One property clerk..... | 1,600.00 |
| Nine clerks, class 1 (increase of 2 submitted)..... | 10,800.00 |
| Eight clerks, at \$1,000 each (increase of 3 submitted)..... | 8,000.00 |

NOTE.—One library clerk, at \$900, dropped.

| | |
|---|----------|
| One assistant property custodian..... | 900.00 |
| Ten clerks, at \$900 each (increase of 4 submitted)..... | 9,000.00 |
| One engineer..... | 1,200.00 |
| Two messengers, at \$840 each..... | 1,680.00 |
| One skilled mechanic (submitted)..... | 900.00 |
| Three skilled laborers, at \$720 each..... | 2,160.00 |
| One skilled laborer..... | 600.00 |
| One fireman..... | 600.00 |
| Three messengers or laborers, at \$600 each (submitted).... | 1,800.00 |
| Three messengers or laborers, at \$480 each..... | 1,440.00 |
| Two messengers or laborers, at \$420 each..... | 840.00 |

Total amount estimated.....

\$66,720.00

NOTE.—The salary of the chief clerk has been increased from \$1,600 to \$1,800. One clerk of class 4, two clerks of class 3, two clerks of class 2, two clerks of class 1, three clerks, at \$1,000 each, four clerks, at \$900 each, one skilled mechanic, at \$900, and three messengers or laborers, at \$600 each, have been added. One library clerk, at \$900, has been dropped. Net increase, \$18,800.

| | |
|--|-------------|
| Amount of above appropriation for fiscal year 1907..... | \$28,260.00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$19,660)..... | 47,920.00 |
| Amount estimated for fiscal year 1909 (increase of \$18,800) | 66,720.00 |

The above force will perform the following duties:

Administrative and executive:

| | |
|--------------------------|------------|
| One chief of bureau..... | \$5,000.00 |
| One chief clerk..... | 1,800.00 |
| | 6,800.00 |

Supplies and accounts:

| | |
|---------------------------------------|----------|
| One property clerk..... | 1,600.00 |
| One clerk, class 2..... | 1,400.00 |
| One clerk, class 1..... | 1,200.00 |
| One clerk..... | 1,000.00 |
| One clerk..... | 900.00 |
| One assistant property custodian..... | 900.00 |
| | 7,000.00 |

Domestic and imported food and drug records
(change of title):

| | |
|--------------------------------|----------|
| One clerk, class 3..... | 1,600.00 |
| One clerk, class 2..... | 1,400.00 |
| One clerk, class 1..... | 1,200.00 |
| One clerk..... | 1,000.00 |
| Two clerks, at \$900 each..... | 1,800.00 |
| | 7,000.00 |

Library:

| | |
|----------------|----------|
| One clerk..... | 1,000.00 |
| One clerk..... | 900.00 |
| | 1,900.00 |

Editorial:

| | |
|-------------------------|----------|
| One clerk, class 4..... | 1,800.00 |
| One clerk..... | 1,000.00 |
| One clerk..... | 900.00 |
| | 3,700.00 |

BUREAU OF CHEMISTRY—Continued.

Filing and indexing correspondence:

| | | |
|-------------------------|-------------|-------------|
| One clerk, class 3..... | \$1, 600.00 | |
| One clerk, class 1..... | 1, 200.00 | |
| One clerk..... | 1, 000.00 | |
| | | \$3, 800.00 |

Stenography, typewriting, and miscellaneous records:

| | | |
|------------------------------------|-----------|------------|
| Three clerks, class 2..... | 4, 200.00 | |
| Two clerks, class 1..... | 2, 400.00 | |
| Three clerks, at \$1,000 each..... | 3, 000.00 | |
| Three clerks, at \$900 each..... | 2, 700.00 | |
| | | 12, 300.00 |

Engine and machine room:

| | | |
|---------------------------|-----------|-----------|
| One engineer..... | 1, 200.00 | |
| One fireman..... | 600.00 | |
| One skilled laborer..... | 720.00 | |
| One skilled mechanic..... | 900.00 | |
| One skilled laborer..... | 600.00 | |
| | | 4, 020.00 |

Messengers, cleaning, miscellaneous labor:

| | | |
|--|-----------|-----------|
| Two messengers, at \$840 each..... | 1, 680.00 | |
| Two skilled laborers, at \$720 each..... | 1, 440.00 | |
| Three messengers, at \$600 each..... | 1, 800.00 | |
| Three laborers, at \$480 each..... | 1, 440.00 | |
| Two laborers, at \$420 each..... | 840.00 | |
| | | 7, 200.00 |

Guaranty records:

| | | |
|-------------------------|-----------|-----------|
| One clerk, class 2..... | 1, 400.00 | |
| One clerk, class 1..... | 1, 200.00 | |
| One clerk..... | 900.00 | |
| | | 3, 500.00 |

Inspection records:

| | | |
|--------------------------|-----------|-----------|
| One clerk, class 3..... | 1, 600.00 | |
| Two clerks, class 1..... | 2, 400.00 | |
| One clerk..... | 900.00 | |
| | | 4, 900.00 |

Records of hearings and citations:

| | | |
|-------------------------|-----------|-----------|
| One clerk, class 4..... | 1, 800.00 | |
| One clerk, class 3..... | 1, 600.00 | |
| One clerk, class 1..... | 1, 200.00 | |
| | | 4, 600.00 |

| | |
|------------|--------------|
| Total..... | \$66, 720.00 |
|------------|--------------|

[Laboratory, Department of Agriculture, 1909—\$750,000.]

| | |
|--|---------------|
| Lump-fund salaries in Washington..... | \$190, 800.00 |
| Lump-fund salaries outside of Washington..... | 265, 700.00 |
| Stationery..... | 8, 000.00 |
| Miscellaneous supplies and services, equipment, books, machinery, etc..... | 62, 860.00 |
| Furniture..... | 3, 000.00 |
| Freight..... | 1, 500.00 |
| Express..... | 2, 500.00 |
| Telegraph..... | 450.00 |
| Telephone..... | 500.00 |
| Rent..... | 16, 650.00 |
| Gas and electricity..... | 2, 000.00 |
| Apparatus, instruments, and laboratory material..... | 97, 740.00 |
| Travel and station and field expenses..... | 98, 300.00 |

| | |
|------------|-------------|
| Total..... | 750, 000.00 |
|------------|-------------|

| | |
|---|-------------|
| Amount of above appropriation (including "Laboratory, Department of Agriculture" and "Enforcement of the food and drugs act") for fiscal year 1907..... | 395, 920.00 |
|---|-------------|

BUREAU OF CHEMISTRY—Continued.

| | |
|---|--------------|
| Amount of above appropriation for fiscal year 1908 (increase of \$254,080)..... | \$650,000.00 |
| Amount of above appropriation for fiscal year 1909 (increase of \$100,000)..... | 750,000.00 |
| <hr/> | |
| Total of all appropriations estimated for the Bureau of Chemistry for the fiscal year 1909..... | \$816,720.00 |

PROJECTS.

| | |
|---|------------|
| 1. Administrative—Office, clerical, and editorial: | |
| Salaries..... | \$9,500.00 |
| Traveling expenses..... | 2,500.00 |
| Supplies..... | 7,300.00 |
| | <hr/> |
| | 20,000.00 |
| 2. Food division—For carrying on previous work and study of new methods of analyses and methods for detection of adulteration in foods. The number of check analyses and the entire work of the laboratory in connection with the food and drugs act has been greatly increased: | |
| Salaries..... | 42,000.00 |
| Traveling expenses..... | 2,500.00 |
| Supplies..... | 12,350.00 |
| General expenses..... | 2,500.00 |
| | <hr/> |
| | 59,350.00 |
| 3. Drug laboratory—For carrying on previous work and for study of new problems in drugs and their analysis. The checking of the analyses of branch laboratories and the analyses of samples in connection with food and drugs act has greatly increased the work in this laboratory. | |
| Salaries..... | 38,000.00 |
| Traveling expenses..... | 2,000.00 |
| Supplies..... | 9,320.00 |
| General expenses..... | 1,200.00 |
| | <hr/> |
| | 50,520.00 |
| <hr/> | |
| 4. Branch food and drug inspection laboratories—For analysis of samples, for conducting hearings and other work in connection with enforcement of food and drugs act; five additional laboratories to be established in cities in territory in which no laboratories have yet been opened: | |
| New York laboratory— | |
| Salaries..... | 25,000.00 |
| Traveling expenses..... | 1,500.00 |
| Supplies..... | 7,000.00 |
| General expenses..... | 2,000.00 |
| | <hr/> |
| | 35,500.00 |
| Boston laboratory— | |
| Salaries..... | 7,700.00 |
| Traveling expenses..... | 500.00 |
| Supplies..... | 2,900.00 |
| General expenses..... | 600.00 |
| | <hr/> |
| | 11,700.00 |
| San Francisco laboratory— | |
| Salaries..... | 7,700.00 |
| Traveling expenses..... | 500.00 |
| Supplies..... | 2,900.00 |
| General expenses..... | 600.00 |
| | <hr/> |
| | 11,700.00 |

BUREAU OF CHEMISTRY—Continued.

4. Branch food and drug inspection laboratories, etc.—Continued.

New Orleans laboratory—

| | | |
|-------------------------|-------------|--------------|
| Salaries..... | \$7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 600.00 | |
| | | \$11, 700.00 |

Philadelphia laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 600.00 | |
| | | 11, 700.00 |

Chicago laboratory—

| | | |
|-------------------------|------------|------------|
| Salaries..... | 13, 900.00 | |
| Traveling expenses..... | 800.00 | |
| Supplies..... | 4, 500.00 | |
| General expenses..... | 1, 300.00 | |
| Rent..... | 1, 800.00 | |
| | | 22, 300.00 |

Denver laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| Rent..... | 1, 200.00 | |
| General expenses..... | 600.00 | |
| | | 12, 900.00 |

Detroit laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| Rent..... | 600.00 | |
| General expenses..... | 600.00 | |
| | | 12, 300.00 |

Buffalo laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 600.00 | |
| | | 11, 700.00 |

Galveston laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 600.00 | |
| | | 11, 700.00 |

Kansas City laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 600.00 | |
| | | 11, 700.00 |

Savannah laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 600.00 | |
| | | 11, 700.00 |

Portland laboratory—

| | | |
|-------------------------|-----------|--|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |

BUREAU OF CHEMISTRY—Continued.

4. Branch food and drug inspection laboratories, etc.—Continued.

Portland laboratory—Continued.

| | | |
|-----------------------|-------------|--------------|
| Rent..... | \$1, 260.00 | |
| General expenses..... | 600.00 | |
| | | \$12, 960.00 |

Seattle laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| Rent..... | 1, 500.00 | |
| General expenses..... | 600.00 | |
| | | 13, 200.00 |

Cincinnati laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| Rent..... | 1, 500.00 | |
| General expenses..... | 600.00 | |
| | | 13, 200.00 |

St. Paul laboratory—

| | | |
|-------------------------|-----------|------------|
| Salaries..... | 7, 700.00 | |
| Traveling expenses..... | 500.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 600.00 | |
| | | 11, 700.00 |

| | |
|------------------------------------|-------------|
| Total for branch laboratories..... | 227, 660.00 |
|------------------------------------|-------------|

Five additional branch laboratories (each)—

| | | |
|---------------------------------|------------|--|
| Cost of original equipment..... | 2, 500.00 | |
| Maintenance for nine months— | | |
| Salaries..... | 5, 000.00 | |
| Supplies..... | 2, 100.00 | |
| General expenses..... | 400.00 | |
| | 10, 000.00 | |

| | |
|---|------------|
| Total, 5 additional branch laboratories.... | 50, 000.00 |
|---|------------|

5. Inspection work—For inspection work, collecting samples, inspecting food factories and plants in connection with enforcement of food and drugs act. It will be necessary to increase the number of inspectors to at least 50.

Salaries, 50 inspectors—

| | | |
|-------------------------|-----------|--|
| Average salary..... | 1, 600.00 | |
| Traveling expenses..... | 1, 500.00 | |
| Samples..... | 500.00 | |
| | 3, 600.00 | |

| | |
|---------------------------|-------------|
| Total, 50 inspectors..... | 180, 000.00 |
|---------------------------|-------------|

6. Miscellaneous laboratory—For carrying on previous work and investigations. The work on mineral waters and cattle foods in connection with food and drugs act has been greatly increased. The insecticide and fungicide investigations are increasing rapidly, as is also the study of effect of trade wastes on vegetation.

| | | |
|-------------------------|------------|------------|
| Salaries..... | 15, 000.00 | |
| Traveling expenses..... | 1, 200.00 | |
| Supplies..... | 2, 890.00 | |
| General expenses..... | 600.00 | |
| | | 19, 690.00 |

BUREAU OF CHEMISTRY—Continued.

7. Dairy laboratory—For carrying on previous work. The work of this laboratory has been greatly increased by enforcement of food and drugs act:
- | | | |
|-------------------------|-------------|--------------|
| Salaries..... | \$8, 500.00 | |
| Traveling expenses..... | 100.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 300.00 | |
| | | \$11, 800.00 |
8. Leather and paper laboratory—For continuation of the study of tanning materials with reference to the utilization of such products as grow quickly, or which have hitherto been little used, with a view of supplementing the rapidly decreasing supply; for the study of physical and chemical qualities of leather, and of the principles of rapid tanning; for studying papers for various uses, and the preparation of standard specifications for such papers; for investigation of new raw materials for pulp and paper making; for the investigation of the production and industrial application of wood turpentine and the study of the destructive distillation of woods; for testing paper supplied by contractors to the Government Printing Office, Post-Office Department, and other Departments:
- | | | |
|-------------------------|-----------|-----------|
| Salaries..... | 6, 500.00 | |
| Traveling expenses..... | 400.00 | |
| Supplies..... | 1, 800.00 | |
| General expenses..... | 300.00 | |
| | | 9, 000.00 |
9. Sugar laboratory—For continuation of previous work; for studying effect of environment and processes of manufacture upon composition of beet molasses; for study of chemical methods employed in the analysis of sugars and carbohydrates; for examination of samples of sugars and sirups in connection with the enforcement of the food and drugs act. This part of the work has been greatly increased:
- | | | |
|-------------------------|-----------|------------|
| Salaries..... | 8, 000.00 | |
| Traveling expenses..... | 150.00 | |
| Supplies..... | 2, 900.00 | |
| General expenses..... | 150.00 | |
| | | 11, 200.00 |
10. Contracts laboratory—Continuation and extension of tests of contract supplies furnished by contractors to this and other Departments; the study of methods of testing and the preparation of specifications. The testing of scientific apparatus for the new branch laboratories has increased the work of this laboratory:
- | | | |
|-------------------------|-----------|------------|
| Salaries..... | 8, 500.00 | |
| Traveling expenses..... | 150.00 | |
| Supplies..... | 2, 700.00 | |
| General expenses..... | 450.00 | |
| | | 11, 800.00 |

BUREAU OF CHEMISTRY—Continued.

| | | |
|--|------------|------------|
| 11. Micro-chemical laboratory—For continuation of previous work; for the microscopic examination of samples in connection with the food and drugs act, the number of which has been greatly increased: | | |
| Salaries..... | \$5,000.00 | |
| Traveling expenses..... | 250.00 | |
| Supplies..... | 2,070.00 | |
| General expenses..... | 400.00 | |
| | | \$7,720.00 |
| 12. Bacteriological investigations—Bacteriological examination of samples and for studying the wholesomeness and sanitary condition of foods in connection with the enforcement of the food and drugs act; for investigating in collaboration with drug laboratory the sterility of various dressings, bandages, pads, ligatures, gauzes, etc., used in surgery; for continuation of previous investigations: | | |
| Salaries..... | 6,000.00 | |
| Traveling expenses..... | 250.00 | |
| Supplies..... | 1,570.00 | |
| General expenses..... | 300.00 | |
| | | 8,120.00 |
| 13. Animal physiological chemistry—Continuation and extension of previous work; all the analytical work in connection with these studies, which was previously done in the food division, has been transferred to this laboratory, necessitating an increase in the number of analysts employed. This change was made on account of increased work in food division in connection with the enforcement of food and drugs act: | | |
| Salaries..... | 12,500.00 | |
| Traveling expenses..... | 250.00 | |
| Supplies..... | 4,190.00 | |
| General expenses..... | 500.00 | |
| | | 17,440.00 |
| 14. Vegetable physiological chemistry—Continuation and extension of previous work in collaboration with Bureau of Plant Industry; study of the influence of fertilizers, especially phosphate salts, on the gluten content of wheat; study of the influence of preceding legume crops on the gluten content of wheat; study of barley and malts; for the continuation and completion of the work previously done in plant analysis laboratory: | | |
| Salaries..... | 11,300.00 | |
| Traveling expenses..... | 250.00 | |
| Supplies..... | 3,650.00 | |
| General expenses..... | 500.00 | |
| | | 15,700.00 |
| 15. Special investigations: | | |
| For studying effect of cold storage on foods..... | 6,000.00 | |
| For examination for nitrogen of all samples requiring such test. This work has been greatly increased by increase of samples under food and drugs act.... | 7,000.00 | |
| For study of effect of environment on sweet Indian corn..... | 4,000.00 | |

BUREAU OF CHEMISTRY—Continued.

15. Special investigations—Continued.

| | |
|---|------------|
| For study of fermentation in cider and fruit juices as affecting the chemical composition of their products..... | \$3,000.00 |
| For special chemical investigations conducted for or in collaboration with other Departments as requested; for employment of secret-service men and others for investigations in connection with enforcement of food and drugs act..... | 30,000.00 |
| Salaries..... | 34,000.00 |
| Traveling expenses..... | 4,000.00 |
| Supplies..... | 10,000.00 |
| General expenses..... | 2,000.00 |
| | 50,000.00 |
| Total appropriations for the Bureau of Chemistry for the fiscal year 1907..... | 424,180.00 |
| Total appropriations for fiscal year 1908 (increase of \$273,740)..... | 697,920.00 |
| Total estimate of appropriations for fiscal year 1909 (increase of \$118,800)..... | 816,720.00 |

BUREAU OF SOILS.

[Salaries, Bureau of Soils—\$40,600.]

| | |
|---|----------|
| One soil physicist, who shall be Chief of Bureau (increase of \$500 submitted)..... | 4,000.00 |
| One chief clerk..... | 2,000.00 |
| Two clerks, class 4..... | 3,600.00 |
| Two clerks, class 3 (increase of 1 submitted)..... | 3,200.00 |
| Four clerks, class 2 (increase of 1 submitted)..... | 5,600.00 |
| Eight clerks, class 1 (increase of 2 submitted)..... | 9,600.00 |
| One draftsman..... | 1,200.00 |
| One draftsman..... | 1,000.00 |
| Four clerks, at \$1,000 each..... | 4,000.00 |
| Three clerks, at \$840 each..... | 2,520.00 |
| One carpenter..... | 840.00 |
| One photographer..... | 1,000.00 |

NOTE.—One fireman, at \$840, and 2 watchmen, at \$720, each have been dropped.

| | |
|-------------------------------|--------|
| One messenger..... | 720.00 |
| One messenger or laborer..... | 480.00 |
| One charwoman or laborer..... | 480.00 |
| One messenger boy..... | 360.00 |

| | |
|-----------------------------|-------------|
| Total amount estimated..... | \$40,600.00 |
|-----------------------------|-------------|

NOTE.—The salary of the Chief of Bureau has been increased from \$3,500 to \$4,000. One clerk, class 3; 1 clerk, class 2, and 2 clerks, class 1, have been added, and 1 fireman, at \$840, and 2 watchmen, at \$720, have been dropped. Net increase, \$3,620.

| | |
|---|-----------|
| Amount of above appropriation for fiscal year 1907..... | 36,400.00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$580)..... | 36,980.00 |
| Amount estimated for fiscal year 1909 (increase of \$3,620)..... | 40,600.00 |

The employees named above will perform the following duties:

Administration and supervision:

| | |
|-------------------------|------------|
| Chief of Bureau..... | \$4,000.00 |
| Chief clerk..... | 2,000.00 |
| One clerk, class 3..... | 1,600.00 |
| One clerk, class 2..... | 1,400.00 |
| | 9,000.00 |

BUREAU OF SOILS—Continued.

Records and correspondence:

| | | |
|-------------------------------|------------|-------------|
| Five clerks, class 1..... | \$6,000.00 | |
| Three clerks, at \$1,000..... | 3,000.00 | |
| Two clerks, at \$840..... | 1,680.00 | |
| | | \$10,680.00 |

Field records and map section:

| | | |
|----------------------------|----------|----------|
| One clerk, class 4..... | 1,800.00 | |
| One clerk, class 1..... | 1,200.00 | |
| One draftsman..... | 1,200.00 | |
| One draftsman..... | 1,000.00 | |
| One clerk, at \$1 000..... | 1,000.00 | |
| One clerk, at \$840..... | 840.00 | |
| One photographer..... | 1,000.00 | |
| | | 8,040.00 |

Editorial section:

| | | |
|--------------------------|----------|----------|
| One clerk, class 4..... | 1,800.00 | |
| Two clerks, class 2..... | 2,800.00 | |
| One clerk, class 1..... | 1,200.00 | |
| | | 5,800.00 |

Accounts:

| | | |
|-------------------------|----------|----------|
| One clerk, class 3..... | 1,600.00 | |
| One clerk, class 2..... | 1,400.00 | |
| | | 3,000.00 |

Property clerk, one clerk, class 1..... 1,200.00 1,200.00

Messengers, fireman, carpenter, watchmen, laborers, charwomen, etc.:

| | | |
|---|--------|----------|
| One messenger, at \$720..... | 720.00 | |
| One carpenter, at \$840..... | 840.00 | |
| One messenger boy, at \$360..... | 360.00 | |
| One messenger or laborer, at \$480..... | 480.00 | |
| One charwoman or laborer, at \$480..... | 480.00 | |
| | | 2,880.00 |

Total..... \$40,600.00

[Soil investigations, 1909—\$200,000.]

| | | |
|--|------------|------------|
| Salaries..... | 140,000.00 | |
| Stationery..... | 1,200.00 | |
| Miscellaneous supplies and services..... | 3,155.00 | |
| Furniture..... | 300.00 | |
| Freight..... | 125.00 | |
| Express..... | 210.00 | |
| Telegraph..... | 80.00 | |
| Telephone..... | 30.00 | |
| Apparatus, instruments, and laboratory material..... | 2,250.00 | |
| Travel and station and field expenses..... | 52,650.00 | |
| | | 200,000.00 |
| Amount of above appropriation for fiscal year 1907..... | 185,000.00 | |
| Amount of above appropriation for fiscal year 1908 (decrease of \$15,000)..... | 170,000.00 | |
| Amount estimated for fiscal year 1909 (increase of \$30,000)..... | 200,000.00 | |

Total amount estimated for all appropriations for the Bureau of
Soils for the fiscal year 1909..... 240,600.00

PROJECTS.

Soil survey.

The demand for soil-survey work is very great. There are now on file in the Bureau of Soils requests for the survey of nearly 400 different areas in the various States and Territories. The requests for this work are sent to the Bureau as petitions from citizens of different counties, from boards of trade, from chambers of commerce of cities located in prominent agricultural districts, from experiment stations, from large development companies, from railroads to aid in their development work, from horticultural societies,

BUREAU OF SOILS—Continued.

from State departments of agriculture, State geological surveys, and from various other sources.

With the present appropriation the Bureau averages about 40 areas each year, so that with its present force it would require nearly ten years to complete the surveys for which applications are now on file. The following distribution of the work, based upon the estimates submitted by the Secretary of Agriculture, is contemplated for the fiscal year 1909.

Administration:

| | |
|-------------------------|-------------|
| Salaries..... | \$4, 800.00 |
| Traveling expenses..... | 500.00 |
| | <hr/> |
| | 5, 300.00 |

Inspection and correlation:

| | |
|-------------------------|-----------|
| Salaries..... | 2, 000.00 |
| Traveling expenses..... | 1, 000.00 |
| | <hr/> |
| | 3, 000.00 |

Reconnaissance surveys.

Appalachian fruit belt: Work contemplated here is taken up under soil utilization.

Abandoned farms: Work contemplated here is taken up under soil utilization.

Cotton soils: Work contemplated here is taken up under soil utilization.

Piedmont plateau: Work contemplated here is taken up under soil utilization.

Special surveys, experiment station farms: This work will be continued during the fiscal year 1909, and, as opportunity permits, detailed soil surveys on a scale of 1 inch to the acre will be made of the experiment station farms in the United States.

County and areal surveys.

The actual selection of areas to be surveyed is finally decided in September for the fall and winter assignments of the field parties, and in February for the spring and summer assignments, and the exact areas to be surveyed in the fiscal year 1909 and the estimated cost of each can not be stated prior to the actual assignments. The estimated expenditures to be made and the approximate number of square miles in each of the grand divisions of the United States, based upon the work done in 1907 and in previous years, and the applications now on file in the Bureau, are as follows:

North Atlantic Division: There are on file in the Bureau of Soils 22 requests for soil surveys in this division, aggregating over 10,000 square miles. With due regard to requests from other sections of the country, and the estimates of appropriations, 10 areas should be surveyed during the fiscal year 1909, covering an aggregate area of 3,150 square miles, at an estimated cost of—

| | |
|---------------------|-------------|
| Salaries..... | \$7, 812.00 |
| Field expenses..... | 3, 906.00 |
| | <hr/> |
| Total..... | 11, 718.00 |

The proposed distribution of this work and the agricultural interests which will be served are as follows:

New Hampshire.—Two requests are on file for soil surveys in this State, to furnish information regarding the soils and their adaptation to crops in connection with the investigations of the abandoned farm situation, which this Bureau has been studying in cooperation with the New Hampshire Experiment Station. In the interest of the work of rejuvenating the farming industry of that State, which has been rapidly pushed forward, the survey of at least one of these areas should be undertaken during the fiscal year 1909.

New York.—Applications are on file for the soil survey of 11 different areas in this State. These petitions come from grange associations of various counties, the horticultural department of Cornell University, the New York State department of agriculture, and from other sources. The character of these requests indicates the need of this work in the development of the truck, hop, alfalfa, tobacco, and fruit interests, as well as of the dairying and other special industries of the State. At least 3 areas should be surveyed in this State during the fiscal year 1909.

Maine.—The Maine Agricultural Experiment Station has requested a survey in Aroostook County, where the soils are largely devoted to potato culture, and it is highly desirable that such a survey should be made during the fiscal year 1909.

New Jersey.—One request is on file for soil-survey work in this State, the object being to show the agricultural possibilities of large areas of overflowed land now being reclaimed by the State.

BUREAU OF SOILS—Continued.

Rhode Island.—A soil survey of the entire State has been completed.

Pennsylvania.—Requests and petitions are on file for the soil survey of 5 areas in this State. These have been submitted by agricultural associations, the experiment stations, and individuals. The most urgent requests appear to be from the fruit interests, which are rapidly spreading into the mountains and high-plateau section of the State. It is desired that reliable information be furnished as to the adaptation of the soil to the different varieties of fruit. These requests in the interest of fruit culture are not confined to particular counties, but are for large areas, covering a considerable portion of the State. Tobacco and general farming interests are also represented. It is desirable that at least 3 areas be surveyed in this State during the fiscal year 1909.

South Atlantic Division: There are on file 103 requests for soil surveys in this important division, aggregating over 50,000 square miles. With due regard to requests from other sections of the country and the estimates of appropriations, 14 areas, covering an aggregate area of 4,900 square miles, should be surveyed during the fiscal year 1909.

The estimated cost of this work is:

| | |
|---------------------|---------------|
| Salaries..... | \$12, 152. 00 |
| Field expenses..... | 6, 076. 00 |
| Total..... | 18, 228. 00 |

The proposed distribution of these surveys and the agricultural interests which will be served are as follows:

Florida.—Requests are on file from State officials, farmers, officials of various county school boards, railroad interests, and agricultural societies, asking for the soil survey of 13 areas in this State. At least two areas should be surveyed during the fiscal year 1909.

Maryland.—There are on file requests from the State geological survey and the State board of immigration for a soil survey of 3 areas in this State. It appears that at least 2 areas should be surveyed during the fiscal year 1909; 1 in the Coastal Plain region, in the interest of the truck growers, and 1 in the northern central part of the State, where general farming is practiced and where the type of farming is changing to conform with developments in other parts of the country.

North Carolina.—Requests are on file for the soil survey of 15 areas in this State. These requests come from development companies, bankers, railroads, farmers' associations, the State department of agriculture, the State geological survey, and include as well petitions from leading citizens and farmers. The State department of agriculture is cooperating in this work in a very efficient manner, and at least 2 areas should be surveyed during the fiscal year 1909.

Georgia.—Requests are on file for the soil survey of 19 areas in this State. They have been submitted by the colonization departments of several of the large railroads, influential citizens, and State officials of various counties, the district agricultural school authorities, and from large corporations interested in the production of high-grade cigar tobacco. The interests involved represent fruit, truck, tobacco, cotton, dairying, and general farming. At least 2 areas should be surveyed in this State during the fiscal year 1909.

South Carolina.—Applications are on file for the soil survey of 19 areas in this State. The requests come from the experiment station, chambers of commerce, citizens' associations, railroads, and others interested in the development of the agricultural and soil resources of the State. It is desirable that at least 2 areas should be surveyed during the fiscal year 1909.

Virginia.—Requests and petitions are on file for a soil survey of 24 areas in this State. These requests are made in the interest of truck growers, fruit growers, tobacco growers, and those engaged in general farming. The requests come from county organizations, farmers' organizations, boards of supervisors, business men's associations, the experiment station, lumber companies, railroads, and other organizations, as well as from individuals interested in the greater development of the soil resources of the State. The survey of at least 2 areas should be made during the fiscal year 1909.

Owing to the great interest in agricultural development in Virginia, and the urgency of the requests for information regarding the soils, their treatment, and crop adaptations, this amount of work is wholly inadequate, but is probably the best that can be done with justice to similar demands for work in other States.

West Virginia.—Requests are on file for the soil survey of 10 areas in this State. The petitions come from farmers' associations, large landowners, and loan companies who desire information regarding the agricultural possibilities of various sections of the State, and from the State geological survey, which organization is closely and efficiently cooperating with the Bureau. At least 2 areas should be surveyed during the fiscal year 1909, to provide information for the development of agricultural interests, particularly of the fruit interests, which are rapidly becoming more important.

BUREAU OF SOILS—Continued.

North Central Division: There are on file requests and petitions for the soil survey of 85 areas in this division, aggregating over 43,000 square miles. With due regard to requests from other sections of the country, and the estimates of appropriations, 12 areas should be surveyed during the fiscal year 1909. These will cover an aggregate area of 6,200 square miles at an estimated cost of—

| | |
|---------------------|-------------|
| Salaries..... | \$10,416.00 |
| Field expenses..... | 5,208.00 |
| Total..... | 15,624.00 |

The proposed distribution of this work and the agricultural interests which will be served are as follows:

Indiana.—Requests are on file for the soil survey of 12 areas in this State. These requests are from county organizations and leading citizens and farmers. They have particular reference to the unproductive soils of certain portions of the State and to the use of marsh lands now being reclaimed, upon which trouble is experienced in growing agricultural crops. At least 1 area should be surveyed during the fiscal year 1909.

Illinois.—Requests and petitions for the soil survey of five areas in this State have been received from leading citizens, county officials, bank associations, and railroad interests.

Kansas.—Requests are on file for the soil survey of 4 areas in this State. These are made by investment and loan companies, by citizens, and by the State university. At least 2 areas should be surveyed in this State during the fiscal year 1909.

Michigan.—Requests are on file for the soil survey of 11 areas in this State. These requests are made by horticultural associations, paper companies owning large tracts of pine lands which are being cut over, large iron companies, the State geological survey, and by others who are interested in the extension of the sugar-beet industry. At least one county should be surveyed in the interest of the sugar-beet growers during the fiscal year 1909.

Minnesota.—Requests are on file for the extension of the soil survey to cover four additional areas in this State. These requests come from the experiment station, county associations, commercial clubs, and from the State engineering department. The objects involved are particularly the utilization, agricultural value, and mode of treatment of vast areas of overflow and swamp lands now being reclaimed, and the further development of areas suited to the farm crops and to certain special industries. At least one area should be surveyed to aid in determining the crop adaptation of reclaimed swamp lands, as this seems to be one of the most difficult questions with which the citizens of the State have to deal.

Iowa.—Requests are on file for the soil survey of 6 areas in this State. These are in the form of petitions from leading citizens and landowners, representing particularly the sugar-beet industry, the work being desired to show the extension of soils best suited to this crop. At least 1 area should be surveyed in this State during the fiscal year 1909.

Missouri.—There are on file requests from the State geological department, the State experiment station, and petitions from leading citizens of various counties, asking that surveys be made in 12 different areas in this State. It is desirable that at least 1 area should be surveyed during the fiscal year 1909, and this should be selected to serve the interests of the fruit industry, which is rapidly developing to large proportions.

Nebraska.—Petitions and requests received from leading citizens, county officials, farmers' clubs, the State experiment station, and the State university asking for the soil survey of 15 areas in this State. At least 1 area should be surveyed during the fiscal year 1909, in the north-central part of the State, where as yet no detailed soil survey has been made and little is known of the soils or their crop adaptations.

North Dakota.—Requests and petitions are on file for the soil survey of 4 areas in this State. These have been submitted by citizens' associations, by railroad interests, and by the State agricultural and economic survey. The State is cooperating in a very efficient manner in this work, and at least 2 areas should be surveyed during the fiscal year 1909.

While many more requests are on file from some other States, perhaps nowhere is the value and practical importance of the soil survey more fully realized than in some of the sparsely settled areas in North Dakota. New lands are being taken up for agriculture with little experience to guide the farmers as to the character and treatment of their lands, or as to the crops which can best be grown. The districts are now being rapidly settled and it is important that the settlers make as few mistakes as possible, and that the necessity for empirical experiment be reduced to a minimum.

BUREAU OF SOILS—Continued.

Ohio.—Requests, supported by petitions from landowners and grangers, are on file for the soil survey of 3 areas in this State. At least 1 area should be surveyed during the fiscal year 1909.

Wisconsin.—Requests are on file for the soil survey of 9 areas in this State. These have come from companies and individuals owning large tracts of swamp lands which are being reclaimed and upon which it is difficult to establish agricultural crops; also from those interested in the development of the cut-over timber lands, in the question of vegetable growing for the Chicago market, and in the extension of dairying. At least 1 area, looking to the utilization of the vast section of cut-over pine lands, should be surveyed during the fiscal year 1909.

South Central Division: There are on file in the Bureau of Soils requests for the survey of 134 areas, aggregating over 67,000 square miles. With due regard to requests from other sections of the country and the estimates of appropriations, 17 areas should be surveyed during the fiscal year 1909. These will cover an aggregate area of 6,800 square miles, at an estimated cost of—

| | |
|---------------------|---------------|
| Salaries..... | \$14, 759. 00 |
| Field expenses..... | 7, 375. 00 |
| Total..... | 22, 134. 00 |

The proposed distribution of this work and the agricultural interests which will be served are as follows:

Alabama.—Applications are on file for the soil survey of 27 areas in this State. These requests are supported by petitions of farmers, county agricultural societies, colonization departments of various railroads, lumber companies, the officials of recently established high schools, and by State officials.

The State legislature has appropriated \$10,000 annually for four years to be used in cooperation with and under the advice and direction of the Bureau of Soils, with a view to hastening the completion of the soil survey of the entire State. With this fund, supplemented by what the Bureau can reasonably be expected to expend, it is estimated that the work in this State can be finished in about five and a half years. At least 6 areas should be surveyed in this State during the fiscal year 1909, the State paying approximately one-half of the cost of the work.

Kentucky.—Requests and petitions from leading citizens and landowners are on file for the soil survey of 2 areas in this State.

Arkansas.—Applications are on file for the soil survey of 18 areas in this State. These come as petitions from farmers, boards of trade, county officials, colonization departments of railroads, lumber companies, horticultural interests, and the experiment station. At least 1 area should be surveyed during the fiscal year 1909.

Oklahoma.—Requests are on file for the soil survey of 6 areas in this State. These are in the form of petitions from farmers' unions, county officials, and the State board of agriculture. At least 1 area should be surveyed during the fiscal year 1909.

Louisiana.—Applications are on file for the soil survey of 5 areas. These carry the indorsement of the experiment station, the State geological survey, railroad interests, and farmers' organizations. At least 2 areas should be surveyed in this State during the fiscal year 1909.

Mississippi.—Applications are on file for the soil survey of 9 areas in this State. These applications are supported by petitions from farmers, commercial clubs, boards of trade, and various railroad interests. At least 2 areas should be surveyed in this State during the fiscal year 1909.

Tennessee.—Applications are on file for the soil survey of 21 areas in this State, coming from business men's leagues, large landowners, from citizens from all parts of the State, and from the experiment station. The interests represented are fruit, in the eastern part of the State; tobacco and general farm crops, in the central part; cotton and associated crops, in the western part, and the development of the barrens in the highland rim. At least two areas should be surveyed in this State during the fiscal year 1909. The petitions supporting these requests are numerous and particularly strong and urgent.

Texas.—Applications are on file for the soil survey of 46 areas in this State. These petitions are from farmers' organizations, rice, tobacco, and truck associations, irrigation companies, educational institutions; boards of trade, chambers of commerce, and the colonization departments of various railroads, all seeking information and guidance in the great agricultural development taking place in the State. At least 3 areas should be surveyed in this State during the fiscal year 1909, although from the numerous urgent requests much more work should be done immediately if it can possibly be arranged. The State is so large and the interests so numerous and settlement so rapid that at least 6 soil-survey parties should be continuously at work in Texas.

BUREAU OF SOILS—Continued.

Western Division: There are on file in the Bureau of Soils, requests for the soil survey of 50 areas aggregating over 25,000 square miles. With due regard to requests from other sections of the country and the estimates of appropriations, 8 areas, covering an aggregate area of 2,400 square miles, should be surveyed during the fiscal year 1909, at an estimated cost of—

| | |
|---------------------|--------------|
| Salaries..... | \$6, 944. 00 |
| Field expenses..... | 3, 472. 00 |
| Total..... | 10, 416. 00 |

The proposed distribution of this work and the agricultural interests which will be served are as follows:

California.—Applications are on file for the soil survey of 25 areas in this State. These applications are from chambers of commerce, development associations, irrigation companies, State water and forest associations, horticultural societies, sugar-beet interests, viticultural interests, superintendents of public schools, State officials, colonization departments of railroads, boards of supervisors, and various other interests concerned in the further development of existing agricultural industries, in the reclamation of alkali and swamp lands, in the breaking up of large holdings, and in the extension of agriculture into unoccupied areas. The survey of at least 3 areas should be made in this State during the fiscal year 1909.

The demand for soil survey work in this State is very large and very urgent, and much more work should be done than can possibly be accomplished with present appropriations, giving due consideration to the demands from other sections of the country.

Washington.—Applications are on file for the soil survey of 3 areas in this State. These are in the form of petitions from farmers, requests from irrigation and lumber companies, and others interested in the development of large tracts of land now ready for settlement, or being rapidly cut over, and soon to be opened up for agriculture. At least 1 area should be surveyed during the fiscal year 1909.

Colorado.—Applications are on file for the soil survey of 4 areas in this State. These are supported by petitions from leading farmers and fruit growers, chambers of commerce, irrigation companies, and sugar-beet interests. At least 1 area should be surveyed during the fiscal year 1909. Taking everything into consideration, it seems advisable to place the survey where it may assist in the development of the important fruit growing interest.

Idaho.—Applications are on file for the soil survey of 4 areas in this State. These are supported by farmers' petitions and by requests from irrigation companies and the experiment station. To aid in the agricultural development taking place under the extension of new irrigation systems, at least 1 area should be surveyed during the fiscal year 1909.

Montana.—Applications are on file for the soil survey of 4 areas in this State. These are requests made by irrigation companies, the colonization departments of railroads, and the United States Reclamation Service. One area in this State should be surveyed during the fiscal year 1909.

Nevada.—Informal requests have been made by the colonization department of a new railroad traversing the southern section of the State, for the survey of several different areas in southern Nevada.

New Mexico.—A petition is on file made by a chamber of commerce, also informal requests from officials of the experiment station for a soil survey of the Mesilla Valley.

Oregon.—Applications are on file for the soil survey of 4 areas in this State. These are supported by petitions of leading citizens, particularly in the interest of the development of the fruit industry. At least 1 area should be surveyed during the fiscal year 1909.

Utah.—Applications, submitted by irrigation companies, sugar-beet companies, and the colonization departments of railroads, are on file requesting the soil survey of 3 areas in this State.

Wyoming.—Several informal requests have been made for soil surveys in different sections of the State.

| | |
|--|--------------|
| Traveling expenses between areas..... | \$4, 000. 00 |
| General field supplies..... | 1, 500. 00 |
| Total estimated allotments, Soil Survey..... | 91, 920. 00 |

BUREAU OF SOILS—Continued.

Soil management investigations.

| | |
|--|--------------|
| Administration and inspection of field work: | |
| Salaries..... | \$2, 500. 00 |
| Traveling expenses..... | 900. 00 |
| Total..... | 3, 400. 00 |
| Fertilizer requirements of soils: | |
| Salaries..... | 2, 000. 00 |
| Field expenses and supplies..... | 76. 67 |
| Total..... | 2, 076. 67 |
| Plot experiments with fertilizers: | |
| Salaries..... | 2, 200. 00 |
| Field expenses..... | 100. 00 |
| Total..... | 2, 300. 00 |
| Investigation of greenhouse soils: | |
| This work has for its object a better understanding of the adaptation of soils to classes of greenhouse plants, such as roses, carnations, violets, etc., together with the production of winter vegetables, and includes not only the soil adaptation to the general classes, but to the varieties of these classes as well as the most economical and most efficient use of manures and fertilizers: | |
| Salaries..... | 1, 400. 00 |
| Field expenses..... | 800. 00 |
| Total..... | 2, 200. 00 |
| Investigation and demonstration of efficient methods of soil management: | |
| The object of this work is to give, in the field, practical advice to farmers in regard to better methods of soil management, and crop cultivation, with a view of increasing the yields and at the same time maintaining the fertility of the land. This work is done in connection with truck, fruit, and general farm crops: | |
| Salaries..... | 2, 800. 00 |
| Field expenses..... | 1, 200. 00 |
| Total..... | 4, 000. 00 |
| Educational work and location of school farms: | |
| The work will be conducted in the States of Alabama, Georgia, and Texas until completed, and then extended to other States which are making provision for agricultural education by the establishment of agricultural schools. | |
| Salary..... | 2, 000. 00 |
| Traveling expenses..... | 1, 000. 00 |
| Total..... | 3, 000. 00 |
| Total estimated allotments, soil management investigations..... | 16, 976. 67 |

Soil utilization.

This project provides for the following up of the soil-survey work by men who are familiar with the soils of the United States, their adaptation to crops, and the highest possibilities of their utilization. In the conduct of the soil-survey work a great deal of information is obtained, and opportunities are seen for improvement of the soil conditions and the crops grown on these soils. During the survey, however, the men have their duties to perform and can not stop to give the necessary advice or instruction to the farmers, and there is no way to obtain such instruction except as it appears in the report upon the soils of the area, issued later. These reports, like other published matter from this and other departments of the Government, are read and too often laid aside unacted upon, and in order to obtain the full benefit of the soil survey it has been found advisable to send men back to many of the areas that have been surveyed, to reside awhile in the area, meet the people, and finally to interest them in changing and improving the methods of utilizing their soils. This is one of the most promising, as it is one of the most practical, lines of work that the Bureau has undertaken, and great good has been done in the localities where such work has been carried on.

BUREAU OF SOILS—Continued.

Administration and inspection:

This work provides for a general supervision of the soil-utilization investigations, the disposal of the various field parties, and the inspection of their work.

| | |
|-------------------------|--------------|
| Salaries..... | \$5, 250. 00 |
| Traveling expenses..... | 2, 300. 00 |

| | |
|------------|------------|
| Total..... | 7, 550. 00 |
|------------|------------|

Adaptation of types of soils to varieties of fruit in the Appalachian Fruit Belt.

This investigation includes a field study of the soils of the Appalachian Fruit Belt, which extends from the State of New York in a southwesterly direction into Alabama. The object of the work is to ascertain the classes of fruits, and the varieties of each, best adapted to the different soils occurring throughout this region. It has for its purpose a better understanding of the adaptation of soils to fruits, with the ultimate object of advising fruitgrowers with reference to the location of orchard sites.

| | |
|-------------------------|------------|
| Salaries..... | 1, 800. 00 |
| Traveling expenses..... | 800. 00 |

| | |
|------------|------------|
| Total..... | 2, 600. 00 |
|------------|------------|

Adaptation of various types of soil to the production of high-grade tobacco in Georgia, Florida, and Alabama:

This investigation is for the purpose of determining what types of soils are best adapted to the different classes of tobacco, such as wrapper, binder, and filler, within the region indicated, and includes the giving of practical advice to tobacco growers of this region with reference to the adaptation of their soils to tobacco, together with the cultural methods and fertilizer treatments best suited to meet the needs of the different soil types. This work is done in cooperation with the Bureau of Plant Industry, and as a basis of extending their work into new localities.

| | |
|-------------------------|------------|
| Salaries..... | 1, 600. 00 |
| Traveling expenses..... | 800. 00 |

| | |
|------------|------------|
| Total..... | 2, 400. 00 |
|------------|------------|

Investigation and demonstration of the real value of worn-out or so-called abandoned soils of New York, Pennsylvania, and Ohio:

This work has for its object a rejuvenation of agriculture on the so-called worn-out farms of the above-mentioned States, and will include numerous demonstrations with crop rotations, the use of manures and fertilizers for the purpose of bringing the soils into a productive condition in the shortest possible time. It is done entirely in cooperation with farmers willing to try new methods in the several localities on the advice of the Bureau.

| | |
|-------------------------|------------|
| Salaries..... | 2, 700. 00 |
| Traveling expenses..... | 1, 600. 00 |

| | |
|------------|------------|
| Total..... | 4, 300. 00 |
|------------|------------|

Utilization of the soils of the Puget Sound region for fruit and other high-priced special crops:

This work will include a study of the lands that have recently been cleared of forests, about whose agricultural value little is known from actual experience. It will involve a study of the crop adaptation of the various types of soils and the best cultural methods to follow. The object of the work will be to advise the farmers of that general section of the country, in order that they may avoid failure through the undertaking of agricultural industries to which the region may not be adapted.

| | |
|---------------------|------------|
| Salaries..... | 2, 000. 00 |
| Field expenses..... | 1, 200. 00 |

| | |
|------------|------------|
| Total..... | 3, 200. 00 |
|------------|------------|

BUREAU OF SOILS—Continued.

Adaptation of soils in California to varieties of grapes and of citrus and deciduous fruits:

This work involves a thorough study of the soils of California, for the purpose of ascertaining the soil types best adapted to the production of the different varieties of deciduous and citrus fruits and grapes. The object of the work is to advise with planters regarding the location of sites for these various classes of fruits. Large tracts previously used for the extensive cultivation of wheat are being subdivided for fruit growing, and the experience of the Bureau can be safely relied upon for direction as to the kinds of fruits which may be safely grown on the different soils. Also it is the experience of farmers that the character of the soil has much to do with the color and keeping quality of the fruit, and to the production of grapes for different kinds of wine, raisins, and table purposes. This information is desired by the growers as an aid in the further development of the valuable industries of the State.

| | |
|---------------------|--------------|
| Salaries..... | \$3, 400. 00 |
| Field expenses..... | 2, 000. 00 |

| | |
|------------|------------|
| Total..... | 5, 400. 00 |
|------------|------------|

Investigation of the adaptation of soils to crops in Texas:

This investigation involves a study of the general soil formations of the State of Texas, together with a study of the general crop adaptation of these formations. It has for one of its objects the introduction of the study of soils in the schools of the State, as a basis for a more thorough agricultural instruction, which it is proposed to introduce in the public schools. It is further intended to acquire a general knowledge of the soil conditions and crop adaptations in advance of the detailed soil surveys for the information of prospective settlers in an area now sparsely settled, but which is rapidly developing.

| | |
|-------------------------|------------|
| Salaries..... | 1, 600. 00 |
| Traveling expenses..... | 800. 00 |

| | |
|------------|------------|
| Total..... | 2, 400. 00 |
|------------|------------|

Investigation of the adaptation of the soils of middle Tennessee for the introduction of special crops, and the fuller utilization of the so-called barrens:

This work involves a field study of the crop adaptation of the principal soil types of the above-mentioned district, together with investigation of the best crop rotations and cultural methods for the principal crops grown, and includes also the introduction of new crops, especially fruits to which some soil types of the highland rim and so-called barrens are evidently adapted. It has for its object the utilization of considerable areas of land which have but recently been cleared of their forest growth, together with the necessary demonstrations and advisory work required to assist the farmers of the regions.

| | |
|---------------------|------------|
| Salaries..... | 1, 400. 00 |
| Field expenses..... | 800. 00 |

| | |
|------------|------------|
| Total..... | 2, 200. 00 |
|------------|------------|

Investigation of the adaptation of the soils of eastern South Carolina for diversification of crops and the introduction of long staple cotton:

This investigation involves a study of the soil types with particular reference to their utilization for long staple cotton, and their adaptation to different varieties of upland cotton. Also the possibilities of their utilization for other crops and their fertilizer requirements to increase the yields and to provide for a greater diversification of crops than is now practiced.

| | |
|---------------------|------------|
| Salaries..... | 1, 600. 00 |
| Field expenses..... | 800. 00 |

| | |
|------------|------------|
| Total..... | 2, 400. 00 |
|------------|------------|

BUREAU OF SOILS—Continued.

Investigation of the adaptation of soils to different varieties of cotton in the Gulf Coast States:

This work has for its object a specific knowledge of the varieties of cotton best adapted to the various soil types occurring throughout the principal cotton-growing districts of the Gulf Coast States, and includes such demonstrations and advisory work as will make this knowledge of the most practical value to the cotton planters in general. It is already known that the cotton selected or bred for a rich bottom-land soil is not as well adapted to the sandy uplands and, with the numerous varieties of cotton extant, it is desired to work out the proper utilization of each of the great soil types for the specific varieties of cotton adapted to them.

| | |
|---------------------|--------------|
| Salaries..... | \$1, 400. 00 |
| Field expenses..... | 1, 200. 00 |
| Total..... | 2, 600. 00 |

Investigation of the adaptation of certain soils in the Gulf States for alfalfa and other forage crops:

This investigation involves a study of the types of soil best adapted to the production of alfalfa and other leguminous forage crops. One of the most important needs of the South is more forage for the work stock. It has recently been shown that alfalfa does particularly well on the Houston soils, and that some of the other leguminous crops and sorghum do particularly well on other types of soils. It is proposed to make a thorough investigation of the possibility of utilizing some of the important types of soil for the special production of forage crops.

| | |
|---------------------|------------|
| Salaries..... | 1, 600. 00 |
| Field expenses..... | 800. 00 |
| Total..... | 2, 400. 00 |

| | |
|---|-------------|
| Total estimated allotments, soil utilization..... | 37, 450. 00 |
|---|-------------|

Reclamation of alkali lands.

The investigation of alkali lands and of the methods for preventing the accumulation of alkali, and the reclaiming of such lands, where affected with excessive accumulations of alkali salts, had proceeded to such a point of completeness at the end of the fiscal year 1907 as to show the practicability of handling and reclaiming important types of such soil under different local conditions and for different types of alkali. It therefore seemed advisable to discontinue such investigations. All matters of advice and farm demonstration pertaining thereto will hereafter be handled by the Division of Soil Utilization. The subject, therefore is not included in the division of projects in the estimates for 1909.

Tobacco investigations.

The investigations, following the soil survey, of the possibility of producing a Sumatra type of cigar-wrapper leaf on certain soils in the Connecticut Valley and of Cuban filler leaf on the Orangeburg soils in the Gulf Coast States, and of the introduction of new types of tobacco and the improvement of tobaccos on certain soils in Virginia, Ohio, and New York, having been successfully completed, so far as the soil possibilities are concerned, further investigations under this head were suspended at the close of the fiscal year 1907. The cultural side of the work was turned over to the Bureau of Plant Industry for further investigations of the possibility of improving the crop through selection of seed and the establishment of a more permanent type of leaf, while the Bureau of Soils will continue the investigation and survey of tobacco soils under the Division of the Soil Survey.

Soil fertility investigations.

| | |
|---|--------------|
| Investigation of the maintenance of soil fertility: Salaries..... | \$3, 750. 00 |
| Investigation of the causes of unproductive soils: Salaries..... | 2, 900. 00 |
| Investigations of the organic origin of unproductivity in soils and the effect of green manuring: Salaries..... | 3, 000. 00 |
| Investigation of means for improvement of unproductive soils: Salaries..... | 2, 900. 00 |
| Investigation of the effect of fertilizers on soils: Salaries..... | 3, 000. 00 |

BUREAU OF SOILS—Continued.

Field investigations of soil fertility problems in cooperation with experiment stations:

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|--|------------|
| Salaries..... | \$3,000.00 |
| Traveling expenses..... | 1,528.33 |
| Total..... | 4,528.33 |
| General field and laboratory supplies..... | 325.00 |
| Total estimated allotments, soil fertility investigations..... | 20,403.33 |

Laboratory investigations.

Physical soil investigations, including:

- (a) Conservation of soil moisture.
- (b) Relation of cultural methods to physical condition of soils. The object of this work is to study the effect of cultural methods on the granulation, water-holding power, drainage conditions, ease of root penetration, and evaporation, and conservation of soil moisture; all important factors in crop production.
- (c) Relation of manurial treatment to physical condition of soils. The object of this work is to investigate the influence of various manures and fertilizers in altering the structure, flocculation, porosity, and moisture-holding capacity; including the determination of methods of incorporation, amounts, and the effect of time of application of fertilizers and manures.
- (d) Flocculation, sedimentation, and erosion of soils.
- (e) Retention and conservation of fertilizer ingredients by soils.
- (f) Relation of physical condition to temperature of soils. The object of this work is to study the temperature coefficient of different soils and their capacity to absorb and transmit heat and the effect thereon of insufficient drainage, improper aeration, packing, and texture. The relation of soils to heat and the modification of this relation by cultural methods has an important bearing upon the development of crops and even crop adaptation.
- (g) Effect of moisture content on the absorption and radiation of heat by soils. The object of this work is to determine the effect of varying moisture contents on absorption and radiation of heat by different soil types.
- (h) Field demonstration. The object of this work is to demonstrate certain laboratory results in the field.

| | |
|---------------------|----------|
| Salaries..... | 4,400.00 |
| Field expenses..... | 1,510.00 |
| Total..... | 5,910.00 |

Chemical investigations, including:

- (a) Nitrogen-carrying fertilizers.
- (b) Chemical properties and components of humus. The object of this work is to investigate the character and nature of the organic components of the various soil types, with a view to conserving and increasing the amount of humus under different cultural treatments, and with a view to modifying the character of the decomposition of organic matter to produce the most favorable conditions for crop production.
- (c) Solubility of soil minerals.
- (d) Iron compounds of soil, investigation of.
- (e) Chemical ingredients of organic manures. The work has for its object the investigation of the organic compounds of manures, and of their separation, identification, and properties.
- (f) Methods of analysis. The investigation of new methods of analysis, made necessary by more advanced investigations of soil properties, and of routine methods.
- (g) Field demonstrations. The object of this work is to demonstrate certain laboratory results in the field.
- (h) Chemical properties of alkali soils. This is a continuation of the work necessary for improvement of alkali soils.

| | |
|---------------------|----------|
| Salaries..... | 5,900.00 |
| Field expenses..... | 1,500.00 |
| Total..... | 7,400.00 |

BUREAU OF SOILS—Continued.

| | |
|---|--------------|
| Mechanical analysis of soil types: Salaries..... | \$3, 840. 00 |
| Unclassified analytical work: | |
| Salaries..... | 4, 800. 00 |
| Supplies..... | 500. 00 |
| Total..... | 5, 300. 00 |
| Designing and repairing apparatus for field and laboratory studies: | |
| The laboratory investigations of the physical and chemical properties of soils and the field tests require special apparatus designed and constructed under the immediate supervision of the men engaged in the work. | |
| Salaries..... | 1, 000. 00 |
| Supplies..... | 300. 00 |
| Total..... | 1, 300. 00 |
| Total estimated allotments, laboratory investigations..... | 23, 750. 00 |

Soil erosion.

The object of this investigation, which was started in the spring of 1907, is briefly given on the opposite side of this sheet. It is, in effect, to study the reasons of and remedies for one of the most important causes of the loss of soil fertility. To it may be charged the wasting of wide areas of the arable soils of the United States, and the evil does not end there, for the products of erosion prove a source of menace to, and interference with, the navigation of the waterways of the country. Desultory efforts have been made, through various methods of treatment, to conserve the soils and prevent this waste, but it is now proposed that a systematic study should be made of different soils and of practical methods of preventing their bodily removal from the fields.

| | |
|--|--------------|
| Reconnaissance study of the effect of erosion on agricultural lands: | |
| Salaries..... | \$3, 000. 00 |
| Traveling expenses..... | 2, 000. 00 |
| Total..... | 5, 000. 00 |
| Total estimated allotment, soil erosion..... | 5, 000. 00 |
| Miscellaneous supplies, and miscellaneous and contingent expenses for maintenance and operation of offices and laboratories: | |
| Telephone..... | 30. 00 |
| Telegraph..... | 80. 00 |
| Freight..... | 125. 00 |
| Express..... | 210. 00 |
| Furniture..... | 300. 00 |
| Stationery, apparatus, miscellaneous supplies and services, etc..... | 3, 755. 00 |
| Total..... | 4, 500. 00 |
| Total appropriation for the Bureau of Soils, fiscal year 1907..... | 221, 460. 00 |
| Total appropriation for fiscal year 1908 (decrease, \$14,480)..... | 206, 980. 00 |
| Total estimates of appropriations for fiscal year 1909 (increase, \$33,620)..... | 240, 600. 00 |

BUREAU OF ENTOMOLOGY.

[Salaries, Bureau of Entomology—\$26,360.]

| | |
|---|--------------|
| One entomologist, who shall be chief of bureau (increase of \$750 submitted)..... | \$4, 000. 00 |
| One chief clerk (increase of \$200 submitted)..... | 2, 000. 00 |
| Two clerks, class three (submitted)..... | 3, 200. 00 |
| Four clerks class two..... | 5, 600. 00 |
| One artist..... | 1, 400. 00 |
| Three clerks, class one..... | 3, 600. 00 |
| Five clerks, at \$1,000 each..... | 5, 000. 00 |

BUREAU OF ENTOMOLOGY—Continued.

| | | |
|------------------------------|----------|-------------|
| One messenger..... | \$840.00 | |
| One messenger..... | 720.00 | |
| Total amount estimated | | \$26,360.00 |

NOTE.—The salary of the chief of bureau has been increased from \$3,250 to \$4,000; the chief clerk from \$1,800 to \$2,000, and two clerks of class three have been added. Total increase \$4,150.

| | | |
|---|-----------|--|
| Amount of above appropriation for fiscal year 1907..... | 19,610.00 | |
| Amount of above appropriation for fiscal year 1908 (increase of \$2,600)..... | 22,210.00 | |
| Amount estimated for fiscal year 1909 (increase of \$4,150)... | 26,360.00 | |

The above force will perform the following duties:

Administrative and executive:

The following will be engaged on the administrative and executive work of the

Bureau:

| | | |
|--------------------------|------------|----------|
| One chief of bureau..... | \$4,000.00 | |
| One chief clerk..... | 2,000.00 | |
| One messenger..... | 840.00 | |
| One messenger..... | 720.00 | |
| | | 7,560.00 |

Correspondence and files:

| | | |
|-----------------------------------|----------|-----------|
| Two clerks, class three..... | 3,200.00 | |
| Three clerks, class two..... | 4,200.00 | |
| Two clerks, class one..... | 2,400.00 | |
| Five clerks, at \$1,000 each..... | 5,000.00 | |
| | | 14,800.00 |

Art section:

| | | |
|---------------------------|----------|----------|
| One artist..... | 1,400.00 | |
| One clerk, class one..... | 1,200.00 | |
| | | 2,600.00 |

| | | |
|------------------------------------|----------|----------|
| Library: One clerk, class two..... | 1,400.00 | |
| | | 1,400.00 |

| | | |
|------------|--|-----------|
| Total..... | | 26,360.00 |
|------------|--|-----------|

[Entomological investigations, 1909—\$149,240.00.]

Salaries:

| | | |
|--|-------------|------------|
| In Washington..... | \$50,000.00 | |
| Out of Washington..... | 66,000.00 | |
| Stationery..... | 1,000.00 | |
| Miscellaneous supplies..... | 6,200.00 | |
| Furniture..... | 500.00 | |
| Freight..... | 300.00 | |
| Express..... | 600.00 | |
| Telegraph and telephone..... | 400.00 | |
| Apparatus, instruments, and laboratory material..... | 7,000.00 | |
| Traveling, station, and field expenses..... | 17,240.00 | |
| | | 149,240.00 |
| Amount of above appropriation for fiscal year 1907.... | 75,000.00 | |
| Amount of above appropriation for fiscal year 1908 (increase of \$38,800)..... | 113,800.00 | |
| Amount estimated for fiscal year 1909 (increase of \$35,440)..... | 149,240.00 | |

PROJECTS.

| | | |
|-------------------------------|-----------|--|
| No. 1. Amount allotted | 3,500.00 | |
| No. 2. Amount allotted | 15,000.00 | |
| No. 3. Amount allotted | 26,000.00 | |
| No. 4. Amount allotted | 11,250.00 | |
| No. 5. Amount allotted | 17,000.00 | |
| No. 6. Amount allotted | 5,000.00 | |
| No. 7. Amount allotted | 5,000.00 | |
| No. 8. Amount allotted | 3,000.00 | |
| No. 9. Amount allotted | 2,000.00 | |
| No. 10. Amount allotted | 5,300.00 | |

BUREAU OF ENTOMOLOGY—Continued.

| | |
|------------------------------|-------------|
| No. 11. Amount allotted..... | \$11,500.00 |
| No. 12. Amount allotted..... | 2,000.00 |
| No. 13. Amount allotted..... | 12,000.00 |
| No. 14. Amount allotted..... | 12,690.00 |

No. 15.—Southern field crop insect investigations:

A special emergency appropriation for the cotton boll weevil covers a large part of the work under this section, as does the investigation of the insects under way in the tobacco belts of Tennessee and Kentucky. Project No. 12 also touches upon this same field. But there are insect enemies of other southern staple crops which need investigation, notably of sugar cane and rice. A certain amount of work has been done with these insects incidental to other investigations, and it is proposed thoroughly to study such pests of considerable importance as the sugar-cane borer, the sugar-cane rootworm, the water weevil of the rice crop, and others. Insects affecting tobacco in other parts of the South also come under this head, and with the widespread movement toward further diversification of crops in the South it is safe to predict that the changing of nature's balance will bring forward other insect injuries demanding investigation.....

5,000.00

No. 16. Hydrocyanic-acid gas investigations:

Hydrocyanic-acid gas has been the chief means of controlling the principal scale insects of citrus fruit trees in California for many years. A large percentage of the commercial orchards in the State are fumigated every year, at a cost ranging from 25 cents to \$1.50 a tree, or a total annual expenditure of from \$1,500,000 to \$2,000,000, on the basis of the fumigation of 50 per cent of the trees every year. It becomes, therefore, a matter of very great importance to conduct the operation of fumigation in the most effective and economical manner. The work being done by the Bureau on this subject in California is aimed to thoroughly standardize the process, and was undertaken in response to urgent demands from the horticultural commissioners of the principal fruit-producing counties of California and of many prominent growers. The investigation will cover the following subjects:

- (1) Dosage, or the amount of gas necessary for different purposes. The strength of gas necessary to effectively control the three prominent scale pests of citrus trees in California—namely, the red scale, the purple scale, and the black scale—will be determined under different conditions of location in the drier foothills regions, and the moister coastal strip for different seasons of the year and for the different seasonal conditions of the tree, as whether in fresh leafage or bloom or different stages of the growing fruit.
- (2) Physiological effect on the tree and fruit. There is evidence to show that the gas has a distinct stimulating effect on the tree. The facts in this connection will be determined in the course of the experimental work.
- (3) Mechanical equipment. An important economical consideration in gassing is the employment of the most suitable tent cloths, and their treatment to give durability and imperviousness; also the best mechanical means of hoisting tents over the trees. To be determined under this heading also are the most economical methods of generating the gas and an indication of the quality of chemicals best suited for the purpose.

BUREAU OF ENTOMOLOGY—Continued.

No. 16. Hydrocyanic-acid gas investigations—Cont'd.

In connection with this experimental work the scale species themselves will be given a careful study in the field to determine their exact life history as a basis for the intelligent application of the remedy...

\$6, 000. 00

No. 17. Investigation of insects affecting drying or dried fruits:

Packers and canners, especially on the Pacific coast, have attached much importance to the influence of sulphur fumes in preventing attack from destructive insects infesting drying and dried fruits. The recent restriction of the Bureau of Chemistry of this Department, on the amount of sulphur permissible in such products, has made necessary a thorough investigation of the subject to determine the exact influence of sulphuring on insect attack, while the fruit is drying and in storage, and to determine how infestation may be best avoided. A large number of samples of various classes of fruits have been collected both from drying trays, out-of-doors, and from bins where the fruit is stored, so that any possible insects infesting same might be bred out. A considerable series of insects have been thus secured, and a study is being made of the life history and habits of same, as indicating how best to avoid infestation. Experiments are necessary another season to determine what methods should best be adopted to prevent attack in field and what should be done to keep storage houses free from them.

2, 500. 00

No. 18. Investigation of insects affecting tobacco:

The investigation of insects affecting tobacco was begun in July, 1907. The work has been confined to that part of the dark tobacco belt known as the Clarksville and Hopkinsville district, which comprises 14 counties. Experiments during the season have led to the recommendation of a new method of applying arsenites to tobacco—that is, to the under side of the leaves. When applied in this manner they remain longer upon the plant and are not so easily washed off or into the axils of the leaves as when applied to the upper side of the leaves. When applied to the upper side of the leaves the arsenites are frequently collected by the rain into the axils of the leaves, where they cause a burning and sloughing off of the leaves.

Upon 35 to 40 per cent of the acreage of tobacco—that is, forty to fifty thousand acres—tobacco worms are hand-picked, at a cost of \$10 to \$12 per acre. Poisoning is just as effective, often more so, and costs not more than \$2 per acre. Cooperative experiments by demonstrating the proper method of applying poisons would save to the growers \$350,000 to \$400,000 yearly. Over the entire belt there is need of demonstrations of the proper methods of applying poisons at the different stages of the plant's growth.

The total loss to the growers for the season of 1908 may be summed up as follows: A 25 per cent shortage in crop, due to injury to seed beds by the flea-beetle, loss about \$2,000,000; loss due to the tobacco worm, \$800,000 to \$1,000,000; loss due to hand picking, \$350,000 to \$400,000; total, \$3,150,000 to \$3,400,000.

A large percentage of the larvæ that pupate for the winter mature upon tobacco just before it is cut or upon the suckers which quickly spring up from the stubble. It is recommended, therefore, that tobacco land be plowed immediately after a crop is cut to prevent the growth of suckers and to kill the worms that have pupated.

BUREAU OF ENTOMOLOGY—Continued.

No. 18. Investigation of insects affecting tobacco—Cont'd.

Life history studies upon the different insects affecting the crop were begun, but it was impossible to complete them because the investigation was instituted so late in the season. This work should begin early in the spring of 1908 and continue throughout the year. Coöperate insecticide work should be done in every county in the Clarksville and Hopkinsville district and in as many of the other 52 counties of the dark belt as is possible. Demonstration of fall cultural methods should be continued.....

\$2, 500. 00

No. 19. Insect inspection work:

The Department of Agriculture has become perhaps the largest importing agency in the United States for new plants and seeds. Much of this material comes from the quarters of the world which have never been explored entomologically and with which there has been very little exchange of plant material. All of this material is likely to harbor new insect pests, the introduction of which into the United States might work enormous losses to the existing fruit and other cultures. All such material is therefore most carefully inspected and thoroughly fumigated, and when ever any of it is infested with new enemies, the destruction of which can not be assured, it is destroyed outright. During the past year nearly a thousand lots of imported plants were inspected for injurious insects, the largest one of these containing over 5,000 plants. Many of these lots have been fumigated and others have been destroyed and all were given most careful examination. In the course of this work some pests which threatened to be very important and dangerous have been detected and destroyed.

Inspection is also made, by request of local nurserymen, of all material shipped from the District of Columbia to adjoining States, as owing to the laws of these States, no material can pass their borders without a certificate of inspection. There is no law requiring such inspection by the Department authorities, and it is extended as a necessary courtesy, since without it the local dealer would be practically limited to sales within the District. Comparatively little time, however, is required for this feature of the work, but the general inspection work of the Bureau and the necessary examinations and studies of imported material which go with it occupy the larger portion of the time of 2 expert assistants.....

2, 000. 00

[Cotton boll weevil investigations, 1909—\$50,000.]

| | |
|--|---------------|
| Salaries—out of Washington..... | \$24, 000. 00 |
| Traveling, station, and field expenses..... | 11, 500. 00 |
| Apparatus, instruments, and laboratory material..... | 1, 000. 00 |
| Miscellaneous supplies..... | 1, 000. 00 |
| Stationery..... | 150. 00 |
| Furniture..... | 100. 00 |
| Freight and expressage..... | 500. 00 |
| Telegraph and telephone..... | 150. 00 |
| Rent..... | 600. 00 |
| Contracts and agreements..... | 1, 000. 00 |
| Reserved for sporadic outbreaks..... | 10, 000. 00 |

\$50, 000. 00

| | |
|--|-------------|
| Amount of above appropriation for fiscal year 1907..... | 85, 000. 00 |
| Amount of above appropriation for fiscal year 1908 (decrease of \$45,000)..... | 40, 000. 00 |
| Amount estimated for fiscal year 1909 (increase of \$10,000)..... | 50, 000. 00 |

BUREAU OF ENTOMOLOGY—Continued.

PROJECTS.

| | |
|---|--------------|
| No. 1. Amount allotted..... | \$1, 000. 00 |
| No. 2. Amount allotted..... | 8, 000. 00 |
| No. 3. Amount allotted..... | 1, 000. 00 |
| No. 4. Amount allotted..... | 1, 000. 00 |
| No. 5. Amount allotted..... | 1, 000. 00 |
| No. 6. Amount allotted..... | 2, 000. 00 |
| No. 7. Amount allotted..... | 2, 500. 00 |
| No. 8. Amount allotted..... | 500. 00 |
| No. 9. Amount allotted..... | 2, 000. 00 |
| No. 10. Amount allotted..... | 1, 000. 00 |
| No. 11. Amount allotted..... | 2, 000. 00 |
| No. 12. Amount allotted..... | 2, 500. 00 |
| No. 13. Study of the life history of the weevil in the Red River Valley of Louisiana sufficiently comprehensive to reveal points which may necessitate changes in the system of control perfected in Texas. The insect reacts directly to climatic and other conditions. The indications already are that the adaptations to the conditions found in new regions will make it necessary decidedly to alter the system of control now in use in Texas. Amount allotted..... | 750. 00 |
| No. 14. A further study of the flight of the boll weevil especially for its bearing on quarantines, but also on local control. This work is to be based upon special experiments both in spring and summer. Amount allotted.... | 1, 500. 00 |
| No. 15. Insecticide investigations. Testing sprays, fumigants, repellants, etc., to determine their effect upon the weevil and upon the cotton plant. This is a special line of work made necessary by recent discoveries regarding insecticides. It will require much careful attention. Amount allotted..... | 2, 000. 00 |
| No. 16. A statistical study of boll weevil damage to reveal the exact extent to which the insect has affected production. Amount allotted..... | 1, 500. 00 |
| No. 17. Biological relationships between the boll weevil and the cotton plant covering the efficiency of weevil resisting adaptations and the ability of the weevil to circumvent them, special reference to pilosity, thickness of carpels, toughness of carpel linings, size and appression of bracts, thickness of floral envelopes, density and persistence of foliage, proliferation, retention or shedding of infested fruit, determinate growth, etc. Amount allotted..... | 2, 000. 00 |
| No. 18. Practical utilization of the cotton caterpillar in the control of the boll weevil, including large scale experiments and the obtaining of further information regarding the life history and transformations of the caterpillar. Amount allotted..... | 2, 000. 00 |
| No. 19. A study of the control of various insects, the work of which complicates the boll weevil problem. Amount allotted..... | 1, 000. 00 |
| No. 20. Investigation of the possibility of utilizing cotton stalks in the manufacture of paper, alcohol, etc. Amount allotted..... | 1, 500. 00 |
| No. 21. Legislative requirements to prevent artificial dissemination of the weevil and to minimize the damage necessarily suffered within the infested area. Amount allotted..... | 750. 00 |
| No. 22. An investigation of the relationship of Spanish moss in the hibernation of the boll weevil. Amount allotted..... | 1, 500. 00 |
| No. 23. Photographic work illustrating the results of the investigation for use in publications. Amount allotted..... | 1, 000. 00 |

BUREAU OF ENTOMOLOGY—Continued.

No. 24. Reserve to be used in eradication of isolated colonies likely to occur at any time, payment of labor, traveling expenses, cost of inspection, contracts, etc., depending altogether upon the size and location of the colony or colonies that may be found. Amount allotted. \$10,000.00

[Preventing spread of moths, 1909—\$150,000.]

Salaries:

| | | |
|--|-------------------------|--------------|
| In Washington..... | \$3,000.00 | |
| Out of Washington (including unskilled labor)..... | ^a 126,700.00 | |
| Miscellaneous supplies..... | 10,000.00 | |
| Furniture..... | 250.00 | |
| Express..... | 25.00 | |
| Telegraph and telephone..... | 150.00 | |
| Gas and electricity..... | 15.00 | |
| Rent..... | 860.00 | |
| Apparatus, instruments, and laboratory material..... | 5,000.00 | |
| Traveling, station, and field expenses..... | 4,000.00 | |
| | | \$150,000.00 |

Amount of above appropriation for fiscal year 1907, including \$8,592.73 of immediately available appropriation expended prior to June 30, 1907..... 91,092.73

Amount of above appropriation for fiscal year 1908, less \$8,592.73 expended prior to June 30, 1907, being the balance of the immediately available appropriation (increase of \$50,314.54)..... 141,407.27

Amount estimated for fiscal year 1909 (increase of \$8,592.73)..... 150,000.00

Total amount estimated for all appropriations for the Bureau of Entomology for the fiscal year 1909..... 375,600.00

PROJECTS.

| | | |
|--|------------|--|
| No. 1. Amount allotted..... | 5,000.00 | |
| No. 2. Amount allotted..... | 145,000.00 | |
| Total appropriations for the Bureau of Entomology for the fiscal year 1907, \$412,110 (less \$141,407.27 available in the fiscal year 1908)..... | 270,702.73 | |
| Total appropriations for the fiscal year 1908, \$326,010 (less \$8,592.73 expended in fiscal year 1907) (increase of \$46,714.54)..... | 317,417.27 | |
| Total estimate of appropriations for fiscal year 1909 (increase of \$58,182.73)..... | 375,600.00 | |

BUREAU OF BIOLOGICAL SURVEY.

[Salaries, Bureau of Biological Survey—\$9,780.]

| | | |
|--|------------|--|
| One biologist, who shall be chief of bureau..... | \$3,000.00 | |
| Two clerks, class 1 (increase of 1 submitted)..... | 2,400.00 | |
| Three clerks, at \$1,000 each (increase of 1 submitted)..... | 3,000.00 | |
| One clerk..... | 900.00 | |
| One messenger or laborer..... | 480.00 | |

Total amount estimated..... 9,780.00

NOTE.—One clerk of class 1 and one clerk at \$1,000 have been added.

Total increase, \$2,200.

Amount of above appropriation for fiscal year 1907..... \$7,580.00

Amount of above appropriation for fiscal year 1908 (no increase)..... 7,580.00

Amount estimated for fiscal year 1909 (increase of \$2,200)..... 9,780.00

The above force will perform the following duties:

Administrative:

| | | |
|-------------------------------|----------|--|
| One chief of bureau..... | 3,000.00 | |
| One messenger or laborer..... | 480.00 | |

3,480.00

^a Of this amount \$118,700 is to be used in the employment of unskilled labor.

BUREAU OF BIOLOGICAL SURVEY—Continued.

Correspondence:

| | | |
|-------------------------|--------------|--------------|
| One clerk, class 1..... | \$1, 200. 00 | |
| One clerk..... | 1, 000. 00 | |
| One clerk..... | 900. 00 | |
| | | \$3, 100. 00 |

Office files (reports and photographs):

| | | |
|----------------------------------|------------|------------|
| One clerk, class 1..... | 1, 200. 00 | |
| Two clerks, at \$1,000 each..... | 2, 000. 00 | |
| | | 3, 200. 00 |

| | | |
|------------|--|------------|
| Total..... | | 9, 780. 00 |
|------------|--|------------|

[Biological investigations, 1909—\$60,170.]

Salaries:

| | | |
|---|---------------|--|
| In Washington..... | \$30, 000. 00 | |
| Out of Washington..... | 9, 224. 00 | |
| Traveling, and other field expenses..... | 17, 396. 00 | |
| Miscellaneous and laboratory materials..... | 2, 500. 00 | |
| Stationery..... | 400. 00 | |
| Furniture..... | 250. 00 | |
| Express..... | 200. 00 | |
| Freight..... | 100. 00 | |
| Telegraph and telephone..... | 100. 00 | |

| | | |
|------------|--|-------------|
| Total..... | | 60, 170. 00 |
|------------|--|-------------|

| | | |
|---|-------------|--|
| Amount of above appropriation for fiscal year 1907..... | 44, 420. 00 | |
|---|-------------|--|

| | | |
|---|-------------|--|
| Amount of above appropriation for fiscal year 1908 (no increase)..... | 44, 420. 00 | |
|---|-------------|--|

| | | |
|---|-------------|--|
| Amount estimated for fiscal year 1909 (increase of \$15,750)..... | 60, 170. 00 | |
|---|-------------|--|

| | | |
|---|--|-------------|
| Total of all appropriations estimated for the Bureau of Biological Survey for the fiscal year 1909..... | | 69, 950. 00 |
|---|--|-------------|

PROJECTS.

The following are the more important projects proposed to be conducted by the Bureau of Biological Survey under above appropriation:

No. 1. Preparation of reports and maps relating to life and crop zones—

Dr. C. Hart Merriam, chief, in charge:

| | |
|---------------|---------------|
| Salaries..... | \$10, 000. 00 |
|---------------|---------------|

No. 2. The biological survey of California—Dr.

C. Hart Merriam, Chief, in charge:

| | |
|--|------------|
| Salaries..... | \$800. 00 |
| Traveling, and other field expenses..... | 1, 500. 00 |
| | 2, 300. 00 |

No. 3. The biological survey of New Mexico—
Vernon Bailey, assistant in charge of
geographic distribution, in charge:

| | |
|--|------------|
| Salaries..... | 600. 00 |
| Traveling, and other field expenses..... | 600. 00 |
| | 1, 200. 00 |

No. 4. The biological survey of Colorado—Mer-
ritt Cary, assistant biologist, in charge:
No expenditure.No. 5. The biological survey of Texas—Vernon
Bailey, assistant in charge of geo-
graphic distribution, in charge:

| | |
|--|------------|
| Salaries..... | 600. 00 |
| Traveling, and other field expenses..... | 600. 00 |
| | 1, 200. 00 |

No. 8. The biological survey of Alaska—W. H.
Osgood, assistant biologist, in charge:

| | |
|--|------------|
| Salary..... | 600. 00 |
| Traveling, and other field expenses..... | 600. 00 |
| | 1, 200. 00 |

BUREAU OF BIOLOGICAL SURVEY—Continued.

| | |
|---|--------------|
| No. 9. Investigations of the food-habits of birds—Dr. A. K. Fisher, assistant in charge of economic investigations, in charge: | |
| Salaries..... | \$4, 000. 00 |
| No. 10. The relation of birds to the cotton-boll weevil—A. H. Howell, assistant biologist, in charge: | |
| Salaries..... | \$900. 00 |
| Traveling and other field expenses.. | 1, 200. 00 |
| | 2, 100. 00 |
| No. 11. The food habits of California birds—F. E. L. Beal, assistant in charge of economic ornithology, in charge: | |
| Salaries..... | 1, 200. 00 |
| Traveling and other field expenses.. | 1, 000. 00 |
| | 2, 200. 00 |
| No. 13. The food of land and game birds of the United States—W. L. McAtee, assistant biologist, in charge: | |
| Purchase of stomachs for laboratory examination..... | 100. 00 |
| No. 14. The food of aquatic game birds—W. L. McAtee, assistant biologist, in charge: | |
| Purchase of material for laboratory examination..... | 100. 00 |
| No. 16. Bird migration—Prof. W. W. Cooke, migration expert, in charge: | |
| Salary..... | 1, 200. 00 |
| No. 17. The relation of mammals to agriculture—Dr. A. K. Fisher, assistant in charge of economic investigations, in charge: | |
| Salaries..... | \$2, 500. 00 |
| Traveling and other expenses..... | 1, 500. 00 |
| | 4, 000. 00 |
| No. 19. The importation of animals, birds, and eggs of birds—Henry Oldys, assistant biologist, in charge: | |
| Salaries..... | 1, 200. 00 |
| Inspection fees and field expenses.. | 1, 375. 00 |
| | 2, 575. 00 |
| No. 20. The publication of information concerning game and birds—Dr. T. S. Palmer, assistant in charge of game preservation, in charge: | |
| Salaries..... | 2, 500. 00 |
| No. 21. The protection of game and birds—Dr. T. S. Palmer, assistant in charge of game preservation, in charge: | |
| Salaries..... | \$2, 200. 00 |
| Traveling and other field expenses.. | 1, 800. 00 |
| | 4, 000. 00 |
| No. 22. Bird reservations and game refuges—Dr. T. S. Palmer, assistant in charge of game preservation, in charge: | |
| Wardens' salaries..... | 100. 00 |
| No. 23. Protection of game in Alaska—Dr. T. S. Palmer, assistant in charge of game preservation, in charge: | |
| (No expenditure.) | |
| No. 24. The destruction of ground squirrels, including the study of bacterial diseases—S. E. Piper, scientific assistant, in charge: | |
| Salaries..... | \$1, 200. 00 |
| Traveling and other field expenses.. | 1, 000. 00 |
| | 2, 200. 00 |

BUREAU OF BIOLOGICAL SURVEY—Continued.

| | | |
|--|--------------|--------------|
| No. 25. The relation of wolves and other pre- daceous mammals to stock raising— Vernon Bailey, assistant in charge of geographic distribution, in charge: | | |
| Salaries..... | \$1, 000. 00 | |
| Traveling and other field expenses.. | 500. 00 | |
| | | \$1, 500. 00 |
| No. 26. Fox farming—W. H. Osgood, assistant biologist, in charge: | | |
| Salaries..... | 900. 00 | |
| Traveling and other field expenses.. | 1, 000. 00 | |
| | | 1 900. 00 |
| No. 27. The relation of wild geese to the grain crops of Cali- fornia—Dr. A. K. Fisher, assistant in charge of economic investigations, in charge: | | |
| (No expenditure.) | | |
| No. 28. Administration of the three Divisions of Economic Investigation, Geographic Distribution, and of Game Preservation, into which the work of the Bureau is divided; also the compilation of data from field reports and other sources, and the preparation of circulars, bulletins, and other publications of the Bureau on economic subjects. | | |
| | | 13, 595. 00 |

Below are given two new subjects for investiga-
tion during the fiscal year 1909, which have not
been definitely taken up previously, for lack of
funds:

| | | |
|---|-----------|---------|
| No. 29. Field work in the Eastern States to learn the damage done by birds to small fruits—Dr. A. K. Fisher, assistant in charge of economic investigations, in charge: | | |
| Salaries..... | \$300. 00 | |
| Traveling and other field expenses.. | 500. 00 | |
| | | 800. 00 |

This subject will require work extend-
ing over several seasons.

| | | |
|--|---------|------------|
| No. 30. Investigating the distribution of diseases of quail and other native game birds— Dr. T. S. Palmer, assistant in charge of game preservation, in charge: | | |
| Salaries..... | 600. 00 | |
| Traveling and other field expenses.. | 800. 00 | |
| | | 1, 400. 00 |

A disease, supposed to be the deadly grouse
disease of Europe, has appeared in this country
and is already causing great losses among some of
our native game birds, and threatens their entire
destruction. For this reason an early investiga-
tion of the extent of its distribution and of its
effect should be made with a view to methods of
prevention. This will require work in coopera-
tion with the Bureau of Animal Industry, during
several seasons.

| | |
|--|-------------|
| Total appropriation for the Bureau of Biological Survey for the fiscal year 1907..... | 52, 000. 00 |
| Total appropriation for fiscal year 1908 (no increase)..... | 52, 000. 00 |
| Total appropriation for fiscal year 1909 (increase of \$17, 950)..... | 69, 950. 00 |

DIVISION OF ACCOUNTS AND DISBURSEMENTS.—Continued.

[Salaries, Division of Accounts and Disbursements—\$46,490.]

| | |
|---|--------------|
| One chief of division and disbursing clerk, who shall be administrative officer of the fiscal affairs of the Department (increase of \$500 submitted). | \$3, 250. 00 |
| One assistant chief of division..... | 2, 500. 00 |
| One auditor..... | 2, 000. 00 |
| One cashier and chief clerk..... | 2, 000. 00 |
| One clerk, class 4..... | 1, 800. 00 |

DIVISION OF ACCOUNTS AND DISBURSEMENTS—Continued.

| | |
|--|-------------|
| Six clerks, fclass 3 (increase of one submitted)..... | \$9, 600.00 |
| Eight clerks, class 2 (increase of one submitted by transfer from Secretary's office)..... | 11, 200.00 |
| Four clerks, class 1 (one of whom shall be a stenographer and typewriter) (increase of one submitted)..... | 4, 800.00 |
| Three clerks, at \$1,000 each..... | 3, 000.00 |
| One clerk..... | 900.00 |
| Two clerks, at \$840 each..... | 1, 680.00 |
| Three clerks, at \$720 each..... | 2, 160.00 |
| One custodian of records and files..... | 1, 000.00 |
| One messenger..... | 600.00 |
| Total amount estimated..... | 46, 490.00 |

NOTE.—An increase of \$500 is submitted in the salary of the chief of division and disbursing clerk, and the words "who shall be administrative officer of the fiscal affairs of the Department" have been added to make it fit the additional duties performed by this official. One clerk of class 3, one clerk of class 2 (by transfer from the Secretary's office) and one clerk of class 1, have been added. Total increase, \$4,700.

| | |
|---|------------|
| Amount of above appropriation for fiscal year 1907..... | 32, 210.00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$9,580)..... | 41, 790.00 |
| Amount estimated for fiscal year 1909 (increase of \$4,700)..... | 46, 490.00 |

The above force will perform the following duties:

Administration:

| | |
|---|-------------|
| One chief of division and disbursing clerk, who shall be administrative officer of the fiscal affairs of the Department.. | \$3, 250.00 |
| One assistant chief of division (in charge of the Weather Bureau branch)..... | 2, 500.00 |
| One cashier and chief clerk..... | 2, 000.00 |
| One messenger..... | 600.00 |
| | 8, 350.00 |

Cash section:

| | |
|----------------------------|-----------|
| One clerk class 3 | 1, 600.00 |
| Three clerks class 2 | 4, 200.00 |
| One clerk class 1 | 1, 200.00 |
| One clerk | 720.00 |
| | 7, 720.00 |

Bookkeeping section:

| | |
|-------------------------|-----------|
| One clerk class 3 | 1, 600.00 |
| One clerk class 2 | 1, 400.00 |
| One clerk..... | 1, 000.00 |
| One clerk..... | 840.00 |
| | 4, 840.00 |

Auditing section:

| | |
|----------------------------|------------|
| One auditor..... | 2, 000.00 |
| One clerk class 4 | 1, 800.00 |
| Three clerks class 3 | 4, 800.00 |
| Four clerks class 2 | 5, 600.00 |
| One clerk class 1 | 1, 200.00 |
| One clerk..... | 900.00 |
| One clerk..... | 840.00 |
| One clerk..... | 720.00 |
| | 17, 860.00 |

Card indexing:

| | |
|-------------------------|-----------|
| One clerk class 3 | 1, 600.00 |
| One clerk..... | 1, 000.00 |
| One clerk..... | 720.00 |
| | 3, 320.00 |

Correspondence and filing:

| | |
|---|-----------|
| Two clerks class 1 | 2, 400.00 |
| One clerk..... | 1, 000.00 |
| One custodian of records and files..... | 1, 000.00 |
| | 4, 400.00 |

| | |
|------------|------------|
| Total..... | 46, 490.00 |
|------------|------------|

DIVISION OF PUBLICATIONS.

[Salaries, Division of Publications—\$141,830.]

| | |
|---|----------------|
| One editor, who shall be chief of division..... | \$3, 000. 00 |
| One editor, who shall be assistant chief of division (increase of \$250 submitted)..... | 2, 500. 00 |
| One associate editor (increase of \$250 submitted)..... | 2, 250. 00 |
| One assistant in charge of indexing (increase of \$200 submitted)..... | 2, 000. 00 |
| One index clerk (submitted)..... | 1, 600. 00 |
| Four assistant editors, at \$1,800 each (increase of \$200 each submitted)..... | 7, 200. 00 |
| Two editorial clerks, at \$1,400 each (increase of one submitted)..... | 2, 800. 00 |
| One assistant in charge of illustrations..... | 2, 000. 00 |
| One draftsman or photographer (change in title)..... | 1, 500. 00 |
| Two draftsmen or photographers at \$1,400 each (change in title)..... | 2, 800. 00 |
| One draftsman or photographer (change in title)..... | 1, 200. 00 |
| Two draftsmen or photographers, at \$1,000 each (submitted)..... | 2, 000. 00 |
| One chief clerk (increase of \$200 submitted)..... | 2, 000. 00 |
| Five clerks, class 1..... | 6, 000. 00 |
| Seven clerks, at \$1,000 each..... | 7, 000. 00 |
| One assistant in charge document section..... | 2, 000. 00 |
| One assistant in document section..... | 1, 400. 00 |
| One assistant in document section..... | 1, 200. 00 |
| One foreman in document section..... | 1, 400. 00 |
| One foreman, farmers' bulletin distribution..... | 1, 200. 00 |
| Two forewomen, at \$1,200 each..... | 2, 400. 00 |
| One chief folder..... | 1, 000. 00 |
| One folder..... | 900. 00 |
| Three folders, at \$840 each..... | 2, 520. 00 |
| One clerk..... | 900. 00 |
| Seven clerks, at \$840 each..... | 5, 880. 00 |
| Twenty-nine clerks, at \$720 each..... | 20, 880. 00 |
| Thirty-two clerks, at \$600 each..... | 19, 200. 00 |
| One photographer..... | 1, 200. 00 |
| One assistant photographer..... | 840. 00 |
| Eight skilled laborers, at \$720 each..... | 5, 760. 00 |
| Thirteen skilled laborers, at \$660 each (submitted)..... | 8, 580. 00 |
| Twenty skilled laborers, at \$600 each..... | 12, 000. 00 |
| One messenger..... | 840. 00 |
| Three messengers, at \$720 each..... | 2, 160. 00 |
| Three messengers, at \$600 each..... | 1, 800. 00 |
| Two messengers, at \$420 each..... | 840. 00 |
| One messenger boy..... | 360. 00 |
| One fireman..... | 720. 00 |
| Total amount estimated..... | \$141, 830. 00 |

NOTE.—An increase in salary of one editor and assistant chief from \$2,250 to \$2,500, one associate editor from \$2,000 to \$2,250, one assistant in charge of indexing from \$1,800 to \$2,000, one chief clerk from \$1,800 to \$2,000, and four assistant editors from \$1,600 to \$1,800. One index clerk at \$1,600, one editorial clerk, at \$1,400, two draftsmen or photographers at \$1,000 each, and thirteen skilled laborers, at \$660 each, have been added. The title "draftsman or clerk" has been changed to "draftsman or photographer" wherever these grades appeared. Total increase, \$15,280.

| | |
|---|----------------|
| Amount of above appropriation for fiscal year 1907..... | \$116, 270. 00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$10, 280)..... | 126, 550. 00 |
| Amount estimated for fiscal year 1909 (increase of \$15, 280)..... | 141, 830. 00 |

The above force will perform the following duties:

Administration:

One editor, who shall be chief of division.. \$3, 000. 00

DIVISION OF PUBLICATIONS—Continued.

Administration—Continued.

| | | |
|---|-------------|--------------|
| One editor, who shall be assistant chief of division..... | \$2, 500.00 | |
| One chief clerk..... | 2, 000.00 | |
| One clerk, class 1..... | 1, 200.00 | |
| One clerk..... | 1, 000.00 | |
| Two clerks, at \$720 each..... | 1, 440.00 | |
| One messenger..... | 840.00 | |
| One messenger..... | 420.00 | |
| | | \$12, 400.00 |

Correspondence and files:

| | | |
|----------------------------------|-----------|------------|
| One clerk, class 1..... | 1, 200.00 | |
| Two clerks, at \$1,000 each..... | 2, 000.00 | |
| One clerk..... | 900.00 | |
| Five clerks, at \$840 each..... | 4, 200.00 | |
| Six clerks, at \$720 each..... | 4, 320.00 | |
| Eight clerks, at \$600 each..... | 4, 800.00 | |
| One folder..... | 900.00 | |
| One skilled laborer..... | 600.00 | |
| One messenger..... | 720.00 | |
| | | 19, 640.00 |

Editorial section:

| | | |
|--|-----------|------------|
| One associate editor..... | 2, 250.00 | |
| Four assistant editors, at \$1,800 each..... | 7, 200.00 | |
| Two editorial clerks, at \$1,400 each..... | 2, 800.00 | |
| One clerk..... | 840.00 | |
| | | 13, 090.00 |

Illustration section:

| | | |
|--|-----------|------------|
| One assistant in charge of illustrations..... | 2, 000.00 | |
| One draftsman or photographer..... | 1, 500.00 | |
| Two draftsmen or photographers, at \$1,400 each..... | 2, 800.00 | |
| One draftsman or photographer..... | 1, 200.00 | |
| Two draftsmen or photographers, at \$1,000 each..... | 2, 000.00 | |
| One clerk, class 1..... | 1, 200.00 | |
| One clerk..... | 720.00 | |
| One clerk..... | 600.00 | |
| One photographer..... | 1, 200.00 | |
| One assistant photographer..... | 840.00 | |
| One messenger..... | 600.00 | |
| | | 14, 660.00 |

Indexing section:

| | | |
|--|-----------|-----------|
| One assistant in charge of indexing..... | 2, 000.00 | |
| One index clerk..... | 1, 600.00 | |
| One clerk..... | 1, 000.00 | |
| One clerk..... | 840.00 | |
| Two clerks, at \$720 each..... | 1, 440.00 | |
| | | 6, 880.00 |

Document section:

| | | |
|--|------------|--|
| One assistant in charge of document section..... | 2, 000.00 | |
| One assistant in document section..... | 1, 400.00 | |
| One assistant in document section..... | 1, 200.00 | |
| One foreman in document section..... | 1, 400.00 | |
| One foreman farmers' bulletin distribution..... | 1, 200.00 | |
| Two forewomen, at \$1,200 each..... | 2, 400.00 | |
| Two clerks, class 1, at \$1,200 each..... | 2, 400.00 | |
| Three clerks, at \$1,000 each..... | 3, 000.00 | |
| One chief folder..... | 1, 000.00 | |
| Three folders, at \$840 each..... | 2, 520.00 | |
| Eighteen clerks, at \$720 each..... | 12, 960.00 | |
| Twenty-three clerks, at \$600 each..... | 13, 800.00 | |
| Eight skilled laborers, at \$720 each..... | 5, 760.00 | |
| Thirteen skilled laborers, at \$660 each..... | 8, 580.00 | |
| Nineteen skilled laborers, at \$600 each..... | 11, 400.00 | |
| Two messengers, at \$720 each..... | 1, 440.00 | |
| Two messengers, at \$600 each..... | 1, 200.00 | |

DIVISION OF PUBLICATIONS—Continued.

Document section—Continued.

| | | |
|------------------------------|-----------|---------------|
| One messenger, at \$420..... | \$420. 00 | |
| One messenger, at \$360..... | 360. 00 | |
| One fireman, at \$720..... | 720. 00 | |
| | | \$75, 160. 00 |

Total..... 141, 830. 00

[Publications, Department of Agriculture—\$40,000.]

The estimates for farmers' bulletins for the fiscal year 1909 are included in the estimates for public printing and binding, to be done under the Public Printer.

The estimates for additional assistants for the fiscal year 1909 are combined with "labor and material" appropriation and estimated for under title "Publications, Department of Agriculture."

Salaries, in Washington..... \$20, 000. 00
Rents:

| | | |
|---|--------------|--------------|
| 215 Thirteenth street, SW..... | \$5, 000. 00 | } 5, 060. 00 |
| Room 151, Washington Safe Deposit Company..... | 60. 00 | |
| Envelopes for distribution of documents, etc..... | 8, 000. 00 | |
| Stationery..... | 1, 000. 00 | |
| Office furniture, fixtures, etc..... | 1, 000. 00 | |
| Photographic and artists' materials..... | 2, 500. 00 | |
| Miscellaneous supplies, etc..... | 1, 515. 00 | |
| Electric current..... | 700. 00 | |
| Gas..... | 150. 00 | |
| Telephone..... | 75. 00 | |

| | | |
|--|--------------|---------------|
| Total amount estimated..... | | \$40, 000. 00 |
| Amount of lump-fund appropriation for fiscal year 1907..... | 132, 250. 00 | |
| Amount of lump-fund appropriation for fiscal year 1908..... | | |
| (decrease of \$97,250*)..... | 35, 000. 00 | |
| Amount estimated for fiscal year 1909 (increase of \$5,000)..... | 40, 000. 00 | |

Total of all appropriations estimated for the Division of Publications for the fiscal year 1909..... 181, 830. 00

* NOTE.—There is an apparent decrease in the fiscal year 1908 of \$97,250, but in reality it is an increase of \$1,500 under general expenses for additional assistance and materials, as the item of \$98,750 for printing farmers' bulletins has been omitted and transferred to the appropriation for printing and binding, under the Public Printer, in accordance with section 2 of the sundry civil act, approved June 30, 1906 (Public, No. 383).

| | |
|---|----------------|
| Total appropriations for the Division of Publications for the fiscal year 1907..... | \$248, 520. 00 |
| Total appropriations for fiscal year 1908 (decrease of \$86,970)..... | 161, 550. 00 |
| Total estimate of appropriations for fiscal year 1909 (increase of \$20,280)..... | 181, 830. 00 |

BUREAU OF STATISTICS.

[Salaries, Bureau of Statistics—\$96,440.]

| | |
|---|--------------|
| One statistician, who shall be Chief of Bureau..... | \$3, 500. 00 |
| One assistant statistician, who shall be Assistant Chief of Bureau (increase of \$300 submitted)..... | 2, 500. 00 |

NOTE.—One editorial assistant, at \$2,300, transferred to the lump-fund appropriation.

| | |
|---|-------------|
| One chief clerk..... | 1, 800. 00 |
| Six clerks, class 4..... | 10, 800. 00 |
| Nine clerks, class 3..... | 14, 400. 00 |
| Twelve clerks, class 2..... | 16, 800. 00 |
| Two clerks, at \$1,300 each..... | 2, 600. 00 |
| Thirteen clerks, class 1 (increase of 2 submitted)..... | 15, 600. 00 |

BUREAU OF STATISTICS—Continued.

| | |
|---|------------|
| Nine clerks, at \$1,000 each (decrease of 1 by transfer to Secretary's roll)..... | \$9,000.00 |
| Four clerks, at \$900 each..... | 3,600.00 |
| Four clerks, at \$840 each..... | 3,360.00 |
| Ten clerks, at \$720 each..... | 7,200.00 |
| Six clerks, at \$600 each..... | 3,600.00 |
| Two messengers, at \$840 each..... | 1,680.00 |

Total amount estimated..... \$96,440.00

NOTE.—The salary of the Assistant Statistician has been increased from \$2,200 to \$2,500. One editorial assistant at \$2,300 has been transferred to the lump-fund appropriation, and one clerk at \$1,000 has been transferred to the Secretary's roll. Two clerks of class 1 have been added. Net decrease, \$600.

| | |
|---|-------------|
| Amount of above appropriation for fiscal year 1907..... | \$97,660.00 |
| Amount of above appropriation for fiscal year 1908 (decrease of \$620)..... | 97,040.00 |
| Amount estimated for fiscal year 1909 (decrease of \$600).... | 96,440.00 |

The above force will perform the following duties:

Executive and administrative.

| | |
|---------------------------------|-----------|
| Office of the statistician: | |
| One statistician..... | \$3,500 |
| One assistant statistician..... | 2,500 |
| One clerk class 4..... | 1,800 |
| Two clerks class 3..... | 3,200 |
| One clerk class 2..... | 1,400 |
| | 12,400.00 |
| Office of the chief clerk: | |
| One chief clerk..... | 1,800 |
| Two clerks class 1..... | 2,400 |
| One clerk, at \$900..... | 900 |
| One clerk, at \$720..... | 720 |
| | 5,820.00 |

The increase shown is due principally to an additional clerk of class 1 allowed.

Division of domestic crop reports.

| | |
|-----------------------------------|-----------|
| Township section: | |
| One clerk class 4..... | \$1,800 |
| One clerk class 3..... | 1,600 |
| Five clerks class 2..... | 7,000 |
| Five clerks class 1..... | 6,000 |
| One clerk, at \$1,000..... | 1,000 |
| One clerk, at \$900..... | 900 |
| One clerk, at \$840..... | 840 |
| Three clerks, at \$720..... | 2,160 |
| One clerk, at \$600..... | 600 |
| | 21,900.00 |
| County and township list section: | |
| Four clerks, class 4..... | \$7,200 |
| One clerk, class 3..... | 1,600 |
| Three clerks, class 2..... | 4,200 |
| Two clerks, at \$1,300..... | 2,600 |
| Two clerks, class 1..... | 2,400 |
| Four clerks, at \$1,000..... | 4,000 |
| One clerk, at \$900..... | 900 |
| Two clerks, at \$600..... | 1,200 |
| | 24,100.00 |

BUREAU OF STATISTICS—Continued.

Mailing section:

| | | |
|------------------------------|---------|------------|
| Two clerks, class 1..... | \$2,400 | |
| One clerk, at \$1,000..... | 1,000 | |
| One clerk, at \$900..... | 900 | |
| One clerk, at \$840..... | 840 | |
| Two clerks, at \$720..... | 1,440 | |
| One messenger, at \$840..... | 840 | |
| | | <hr/> |
| | | \$7,420.00 |

Editorial division and library.

Editorial and library section:

| | | |
|------------------------------|---------|-----------|
| Two clerks, class 3..... | \$3,200 | |
| Two clerks, class 2..... | 2,800 | |
| Two clerks, class 1..... | 2,400 | |
| Two clerks, at \$1,000..... | 2,000 | |
| One messenger, at \$840..... | 840 | |
| | | <hr/> |
| | | 11,240.00 |

The increase shown is due principally to an additional clerk of class 1 allowed, and the transfer of clerks from the Division of Domestic Crop Reports.

Typewriting section:

| | | |
|----------------------------|---------|----------|
| One clerk, at \$1,000..... | \$1,000 | |
| One clerk, at \$720..... | 720 | |
| Two clerks, at \$600..... | 1,200 | |
| | | <hr/> |
| | | 2,920.00 |

Division of foreign markets.

| | | |
|-----------------------------|---------|-----------|
| Three clerks, class 3..... | \$4,800 | |
| One clerk, class 2..... | 1,400 | |
| Two clerks, at \$840..... | 1,680 | |
| Three clerks, at \$720..... | 2,160 | |
| One clerk, at \$600..... | 600 | |
| | | <hr/> |
| | | 10,640.00 |

| | |
|------------|-----------|
| Total..... | 96,440.00 |
|------------|-----------|

[Collecting agricultural statistics—\$138,000.]

| | | |
|--|-------------|--------------|
| Salaries in Washington..... | \$15,500.00 | |
| Salaries outside of Washington..... | 70,000.00 | |
| Traveling expenses..... | 42,900.00 | |
| Stationery..... | 5,400.00 | |
| Miscellaneous supplies and services, equipment, books, machinery, etc..... | 2,000.00 | |
| Furniture..... | 1,500.00 | |
| Telegraph..... | 570.00 | |
| Telephone..... | 30.00 | |
| Freight..... | 30.00 | |
| Express..... | 70.00 | |
| | | <hr/> |
| | | \$138,000.00 |
| Amount of above appropriation for fiscal year 1907..... | 108,000.00 | |
| Amount of above appropriation for fiscal year 1908 (increase of \$10,000)..... | 118,000.00 | |
| Amount estimated for fiscal year 1909 (increase of \$20,000) | 138,000.00 | |
| The above in detail are as follows: | | |
| Salaries in Washington: | | |
| Crop report..... | \$4,000.00 | |
| Executive and administrative..... | 8,100.00 | |
| Bulletins, statistical appendix, and miscellaneous..... | 3,400.00 | |
| | | <hr/> |
| | | 15,500.00 |
| Salaries outside Washington: | | |
| Crop report— | | |
| Special field agents..... | 37,300.00 | |
| State statistical agents..... | 27,000.00 | |

BUREAU OF STATISTICS—Continued.

Salaries outside Washington—Continued.

| | | |
|---|-------------|--------------|
| Cooperative work with Minnesota Experiment Station..... | \$2, 300.00 | |
| Statistics in connection with rural schools..... | 1, 400.00 | |
| Investigations of improved methods of securing statistics of acreages of farm products..... | 2, 000.00 | |
| | | \$70, 000.00 |
| Traveling expenses: | | |
| Crop report— | | |
| Special field agents..... | 31, 500.00 | |
| State statistical agents..... | 7, 800.00 | |
| Executive and administrative..... | 2, 000.00 | |
| Bulletins, statistical appendix, and miscellaneous..... | 500.00 | |
| Statistics in connection with rural schools..... | 1, 100.00 | |
| | | 42, 900.00 |
| Stationery, miscellaneous supplies and services, and furniture: | | |
| Crop report..... | 6, 500.00 | |
| Executive and administrative..... | 1, 000.00 | |
| Bulletins, statistical appendix, and miscellaneous..... | 1, 400.00 | |
| | | 8, 900.00 |
| Telegraph and freight: Crop report..... | 600.00 | |
| Telephone and express: Executive and administrative.... | 100.00 | |
| Total..... | | 138, 000.00 |

PROJECTS.

Crop report, collection, compilation, preparation and issuance:

| | | |
|---|-------------|-------------|
| Salaries in Washington..... | \$4, 000.00 | |
| Special field agents— | | |
| Salaries..... | 37, 300.00 | |
| Traveling expenses..... | 31, 500.00 | |
| State statistical agents— | | |
| Salaries..... | 27, 000.00 | |
| Traveling expenses..... | 7, 800.00 | |
| Supplies, stationery, furniture, etc..... | 6, 500.00 | |
| Telegraph and freight..... | 600.00 | |
| | | 114, 700.00 |
| Executive and administrative: | | |
| Salaries in Washington of officials, messengers, laborers, carpenters, etc..... | 8, 100.00 | |
| Traveling expenses of officials..... | 2, 000.00 | |
| Supplies, stationery, furniture, etc..... | 1, 000.00 | |
| Telephone and express..... | 100.00 | |
| | | 11, 200.00 |
| Bulletins, statistical appendix, and* miscellaneous: | | |
| Salaries..... | 3, 400.00 | |
| Supplies and stationery..... | 1, 400.00 | |
| Travel..... | 500.00 | |
| | | 5, 300.00 |
| Cooperative work with Minnesota Experiment Station: | | |
| Salaries..... | 2, 300.00 | |
| Statistics in connection with rural schools: Salaries and traveling expenses..... | 2, 500.00 | |
| Investigations of improved methods of securing statistics of acreages of farm products: Salaries of special local agents in various States..... | 2, 000.00 | |
| Total..... | | 138, 000.00 |

Objects of work: Description of, with explanation of various items of expenditure, and total amount to be charged to above-mentioned appropriation for each purpose:

BUREAU OF STATISTICS—Continued.

*Crop report.**Sources of information.*

Special field agents: In addition to the 2 men provided for in the appropriation for the fiscal year 1908 and now on duty, it is desired to add 3 men to this service to be assigned to territories that can not receive proper attention from the force at present available. Cost of maintenance... \$68,800.00

State statistical agents: In addition to the agent appointed under the appropriation for 1908, it is desired to add an additional man, to be assigned to the State of Florida. The benefits of increased travel on the part of State agents during the past year were so noticeable that it is desired to allot a larger sum to this purpose. Cost of maintenance..... 34,800.00

County correspondents, about 2,900, who report to the Bureau from each county, basing their figures on personal observation, inquiry, and reports from assistants located throughout their respective counties.

No material compensation for the services of these correspondents, other than Department publications and seeds.

Township correspondents, about 30,000 in all, an average of about 10 to each county, who report to the Bureau the conditions in their respective localities.

No compensation, except by means of Department publications and seeds.

All the above-mentioned classes of correspondents report monthly, giving information appropriate to the season concerning the agricultural products within their respective limits.

In addition to the above regular lists of correspondents there are the following:

Individual representative farmers, who report once a year upon grain, in answer to questions as to yield upon their individual farms, and twice a year from the cotton States—in the spring to the question of acreage and in the fall to the question of yield upon their individual farms.

Bankers, merchants, etc., reporting twice a year to the question of acreage in the spring and yield in the fall of cotton.

Ginners, in the cotton States only, reporting twice a year to the question of acreage in the spring and yield in the fall of cotton.

Mills and elevators, reporting once a year to the question of yield per acre of grain.

No compensation, except publications and seeds.

Preparation.

Salaries chargeable to above appropriation..... 4,000.00

By means of an improved method of cost keeping recently inaugurated, the work performed on the crop report by employees carried on the lump-fund roll, which has heretofore been charged to administration, will be hereafter shown under the heading of "Crop report."

Publicity.

Cost of supplies, including filing cases for State agents, envelopes for correspondents' reports, proportion of stationery used in Bureau, etc..... 6,500.00

It is desired to furnish filing cases to those State agents not already supplied. The enlarging volume of the work makes the increased allotment necessary.

BUREAU OF STATISTICS—Continued.

| | |
|------------------------------|---------|
| Freight on filing cases..... | \$30.00 |
| Telegraph charges..... | 570.00 |

Total charges against appropriation "Collecting agricultural statistics, 1909," for crop report work.... 114, 700.00

Executive and administrative.

| | |
|--|-------------|
| Salaries in Washington, officials, clerks, messengers, laborers, watchmen, charwomen, and mechanics..... | \$8, 100.00 |
|--|-------------|

The increase is due to transfer to the lump-fund roll of the editorial assistant heretofore carried on the statutory roll of the Bureau.

| | |
|-------------------------|-----------|
| Traveling expenses..... | 2, 000.00 |
|-------------------------|-----------|

The increase is desired to permit of additional travel. The small expenditure under this heading in 1907 was due to the fact that the Bureau's officials had but a limited amount of time to devote to this duty during that period.

| | |
|---|-----------|
| Supplies, stationery, furniture, lumber, paints, hardware, etc..... | 1, 000.00 |
| Telephone and express charges..... | 100.00 |

Total amount for executive and administrative purposes chargeable to appropriation "Collecting Agricultural Statistics, 1909"..... 11, 200.00

*Bulletins, Statistical Appendix, and Miscellaneous.**Bulletins.*

It is not possible at this time to give a list of the bulletins that will be published in 1909, because they are prepared and issued as rapidly as the need for them becomes apparent and the force to handle them is available.

While the bulk of the work in preparing these publications is done by the regular force when not engaged on crop-report work, the special work in assembling the data and supervising the preparation must be done by statistical experts, viz, the officials of the Bureau and men of special training and ability who are paid on the lump-fund roll under this appropriation.

The Statistical Appendix.

The method of its preparation is the same as stated above in the case of bulletins.

Miscellaneous.

The Crop Reporter, special statistical statements, etc., are prepared in the same manner as bulletins.

| | |
|-----------------------------|-------------|
| Salaries in Washington..... | \$3, 400.00 |
|-----------------------------|-------------|

The amount requested for salaries is the same as allotted under the appropriation for the current fiscal year (1908).

| | |
|--------------------------|-----------|
| Stationery supplies..... | 1, 400.00 |
|--------------------------|-----------|

The item for stationery supplies is expected to be less than during 1907.

BUREAU OF STATISTICS—Continued.

| | | |
|--|-------------|-------------|
| Traveling expenses of officials and clerks engaged in the collection of data..... | \$500.00 | |
| Cost of above to appropriation "Collecting Agricultural Statistics, 1909"..... | | \$5, 300.00 |
| Cooperative work with Minnesota Experiment Station in the collection of data concerning the cost of producing farm products: Salaries..... | | 2, 300.00 |
| Statistics in connection with rural schools: This work is performed under the immediate supervision of the Assistant Secretary. | | |
| Salaries..... | \$1, 400.00 | |
| Traveling expenses..... | 1, 100.00 | |
| | | 2, 500.00 |
| Investigation of improved methods of securing statistics of acreages of farm products, salaries of special local agents..... | | 2, 000.00 |
| Total..... | | 138, 000.00 |
| [Investigation of foreign markets—\$4,900.] | | |
| Salaries in Washington..... | \$4, 200.00 | |
| Traveling expenses..... | 700.00 | |
| | | \$4, 900.00 |
| Amount of above appropriation for fiscal year 1907..... | 4, 900.00 | |
| Amount of above appropriation for fiscal year 1908 (no increase)..... | 4, 900.00 | |
| Amount estimated for fiscal year 1909 (no increase)..... | 4, 900.00 | |
| Total of all appropriations estimated for the Bureau of Statistics for the fiscal year 1909..... | | 239, 340.00 |

PROJECTS.

| | | |
|--|-------------|-------------|
| Executive and administrative, salaries in Washington..... | 2, 000.00 | |
| Bulletins, Statistical Appendix, and Miscellaneous: Salaries in Washington..... | \$1, 950.00 | |
| Traveling expenses..... | 700.00 | |
| | | 2, 650.00 |
| Work for the Secretary, salaries in Washington..... | | 250.00 |
| Total..... | | 4, 900.00 |
| Total of all appropriations for the Bureau of Statistics for the fiscal year 1907..... | 210, 560.00 | |
| Total appropriations for fiscal year 1908 (increase of \$9,380)..... | 219, 940.00 | |
| Total estimate of appropriations for fiscal year 1909 (increase of \$19,400)..... | | 239, 340.00 |

LIBRARY.

[Salaries, Library, Department of Agriculture—\$18,080.]

| | |
|---|------------|
| One librarian..... | 2, 000.00 |
| One assistant librarian..... | 1, 400.00 |
| One clerk (who shall be a translator)..... | 1, 200.00 |
| Two cataloguers, at \$1,200 each (increase of 1 submitted)..... | 2, 400.00 |
| Three cataloguers, at \$1,000 each..... | 3, 000.00 |
| One clerk (submitted)..... | 1, 000.00 |
| Four clerks, at \$900 each..... | 3, 600.00 |
| One clerk..... | 840.00 |
| Two clerks, at \$720 each..... | 1, 440.00 |
| One messenger..... | 720.00 |
| One messenger or laborer..... | 480.00 |
| Total amount estimated..... | 18, 080.00 |

NOTE.—One cataloguer, at \$1,200, and 1 clerk, at \$1,000, have been added; total increase, \$2,200.

LIBRARY—Continued.

| | |
|--|------------------|
| Amount of above appropriation for fiscal year 1907..... | \$15,880.00 |
| Amount of above appropriation for fiscal year 1908 (no increase) | 15,880.00 |
| Amount estimated for fiscal year 1909 (increase of \$2,200).. | <u>18,080.00</u> |

The above force will perform the following duties:

| | |
|---|------------------|
| Administration: | |
| One librarian..... | \$2,000.00 |
| One assistant librarian..... | 1,400.00 |
| One messenger..... | 720.00 |
| One messenger..... | 480.00 |
| | <u>4,600.00</u> |
| Correspondence and files: | |
| One clerk..... | 1,000.00 |
| One clerk..... | 720.00 |
| | <u>1,720.00</u> |
| Cataloguing, reference work, indexing, and translating: | |
| One clerk (translator)..... | 1,200.00 |
| Two cataloguers, at \$1,200 each..... | 2,400.00 |
| Three cataloguers, at \$1,000 each..... | 3,000.00 |
| Two clerks, at \$900 each..... | 1,800.00 |
| One clerk..... | 840.00 |
| | <u>9,240.00</u> |
| Recording and care of periodicals: | |
| Two clerks, at \$900 each..... | 1,800.00 |
| One clerk..... | 720.00 |
| | <u>2,520.00</u> |
| Total..... | <u>18,080.00</u> |

[Library, Department of Agriculture—\$17,500.]

| | | |
|---|--------------------|------------------|
| Books..... | \$11,500.00 | |
| Subscriptions to serials and works published in parts..... | 1,800.00 | |
| Subscriptions to periodicals..... | 3,000.00 | |
| Subscriptions to printed index cards..... | 250.00 | |
| Miscellaneous office supplies and library fixtures..... | 850.00 | |
| Traveling expenses..... | 100.00 | |
| | <u>\$17,500.00</u> | |
| Amount of above appropriation for fiscal year 1907..... | 10,000.00 | |
| Amount of above appropriation for fiscal year 1908 (increase of \$2,500)..... | 12,500.00 | |
| Amount estimated for fiscal year 1909 (increase of \$5,000)... | <u>17,500.00</u> | |
| Total of all appropriations estimated for library for the fiscal year 1909..... | | <u>35,580.00</u> |

REMARKS.

The library appropriation for 1909 will be spent in the purchase of agricultural, scientific, and technical books and periodicals, and reference works needed in connection with the work of the Department. In addition a small part will be spent in the purchase of library fixtures; miscellaneous library supplies, such as card cabinets, filing cases, and catalogue cards, and for traveling expenses.

An increase of \$5,000 is submitted to meet the increased demands of the Department. During the past few years the Department has grown rapidly, and the appropriation for books has not increased proportionately; furthermore by the centralization in the library of the purchase of all books for the Department in Washington the necessity for a larger appropriation is made still more pressing, since it is called upon to meet expenses heretofore provided by other appropriations.

| | |
|--|---------------|
| Total appropriations for the library for the fiscal year 1907..... | \$25,880 |
| Total appropriations for the fiscal year 1908 (increase of \$2,500)..... | 28,380 |
| Total estimate of appropriations for fiscal year 1909 (increase of \$7,200)... | <u>35,580</u> |

OFFICE OF THE CHIEF CLERK.

F

[Contingent expenses, Department of Agriculture, 1909—\$78,200.]

| | |
|--|-----------|
| Salary of dispatch agent in New York..... | \$400.00 |
| Stationery..... | 7,000.00 |
| Miscellaneous supplies, etc..... | 13,800.00 |
| Furniture..... | 2,000.00 |
| Fuel..... | 16,000.00 |
| Freight..... | 50.00 |
| Express..... | 250.00 |
| Telegraph..... | 100.00 |
| Telephone..... | 600.00 |
| Gas and electricity..... | 12,000.00 |
| Traveling expenses..... | 1,000.00 |
| Installation of power plant machinery..... | 25,000.00 |
| | <hr/> |
| | 78,200.00 |

| | |
|--|-----------|
| Amount of above appropriation for fiscal year 1907..... | 37,000.00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$10,000)..... | 47,000.00 |
| Amount estimated for fiscal year 1909 (increase of \$31,200)..... | 78,200.00 |

OFFICE OF EXPERIMENT STATIONS.

[Salaries, Office of Experiment Stations—\$34,620.]

| | |
|--|------------|
| One director..... | \$3,500.00 |
| One chief clerk..... | 1,800.00 |
| One clerk and proof reader..... | 1,600.00 |
| Five clerks, class 2 (increase of one submitted)..... | 7,000.00 |
| Four clerks, class 1..... | 4,800.00 |
| Five clerks, at \$1,000 each (increase of two submitted).... | 5,000.00 |
| Two clerks, at \$900 each..... | 1,800.00 |
| Four clerks, at \$840 each..... | 3,360.00 |
| One clerk or messenger..... | 840.00 |
| One messenger or caretaker..... | 720.00 |
| One messenger..... | 600.00 |
| One messenger or laborer..... | 480.00 |
| Two messengers, at \$480 each..... | 960.00 |
| One copyist or laborer..... | 720.00 |
| Three laborers, or charwomen, at \$480 each..... | 1,440.00 |
| | <hr/> |
| Total amount estimated..... | 34,620.00 |

NOTE.—One clerk of class 2, and two clerks at \$1,000 each, have been added. Total increase, \$3,400.

| | |
|---|-----------|
| Amount of above appropriation for the fiscal year 1907..... | 29,160.00 |
| Amount of above appropriation for fiscal year 1908 (increase of \$2,060)..... | 31,220.00 |
| Amount estimated for fiscal year 1909 (increase of \$3,400)..... | 34,620.00 |

The above force will perform the following duties:

General administration of the office in its relations with agricultural experiment stations, agricultural colleges and schools, farmers' institutes, and investigations on nutrition, irrigation, and drainage; keeping of accounts, and care of office rooms:

| | |
|---------------------------------|-------------|
| Director..... | \$3,500.00 |
| Chief clerk..... | 1,800.00 |
| One clerk, class 2..... | 1,400.00 |
| One clerk..... | 1,000.00 |
| Two clerks, \$900 each..... | 1,800.00 |
| One clerk..... | 840.00 |
| One messenger..... | 720.00 |
| One messenger..... | 480.00 |
| Three laborers, \$480 each..... | 1,440.00 |
| | <hr/> |
| | \$12,980.00 |

OFFICE OF EXPERIMENT STATIONS—Continued.

Preparation of experiment station record, annual report to Congress, bulletins, circulars, etc.:

| | | |
|-------------------------------|--------------|--------------|
| Clerk and proofreader..... | \$1, 600. 00 | |
| Two clerks, class 2..... | 2, 800. 00 | |
| Two clerks, class 1..... | 2, 400. 00 | |
| Two clerks, \$1,000 each..... | 2, 000. 00 | |
| One messenger..... | 480. 00 | |
| | | \$9, 280. 00 |

Correspondence, files, distribution of publications, card index of station publications, care of property, movement of field instruments, and miscellaneous clerical work, including assignment and care of civil service papers sent to the Department for marking:

| | | |
|-------------------------------|------------|-------------|
| Two clerks, class 2..... | 2, 800. 00 | |
| Two clerks, class 1..... | 2, 400. 00 | |
| Two clerks, \$1,000 each..... | 2, 000. 00 | |
| Four clerks, \$840 each..... | 3, 360. 00 | |
| One copyist..... | 720. 00 | |
| One messenger..... | 600. 00 | |
| One messenger..... | 480. 00 | |
| | | 12, 360. 00 |

| | |
|------------|-------------|
| Total..... | 34, 620. 00 |
|------------|-------------|

[Agricultural experiment stations—\$126,995.]

General expenses, \$33,995.

To carry out the provisions of section 3 of act of March 2, 1887, and of sections 2, 4, and 5 of an act approved March 16, 1906:

Supervision of the work and expenditures of 59 agricultural experiment stations in 48 States and Territories, and Alaska, Hawaii, Porto Rico, and Guam, and the promotion of their general interests: the preparation of publications based on the work of over 1,000 agricultural experiment stations and kindred institutions throughout the world, and needed cards of the index of experiment station literature; extending the summaries of the reports of agricultural experiment stations and kindred institutions at home and abroad in order that our investigators, students, and farmers may be more fully informed regarding the progress of agricultural research, these summaries to appear as farmers' bulletins or in the monthly edition of the Experiment Station Record; to suggest in the last-named publications lines of work for the agricultural experiment stations and advice regarding their work and management, as provided for in section 3 of the act of Congress of March 2, 1887.

| | |
|-----------------------------|-------------|
| Salaries..... | 28, 000. 00 |
| Travel..... | 4, 000. 00 |
| Miscellaneous expenses..... | 1, 995. 00 |
| | 33, 995. 00 |

Alaska Experiment Station, \$26,000:

Maintenance of a central experiment station and four branch stations to investigate the agricultural and horticultural resources of Alaska and the development of animal industry, dairying, etc., including care of live stock introduced for experimental purposes.

| | |
|---------------|-------------|
| Salaries..... | 12, 320. 00 |
| Labor..... | 6, 740. 00 |

OFFICE OF EXPERIMENT STATIONS—Continued.

Alaska Experiment Station, \$26,000—Continued.

| | |
|---|--------------|
| Travel..... | \$1, 200. 00 |
| Live stock..... | 1, 000. 00 |
| Miscellaneous expenses, including supplies, freight, fuel, light, fertilizer, etc..... | 4, 740. 00 |
| | <hr/> |
| | 26, 000. 00 |

Hawaii Experiment Station, \$26,000:

Maintenance of an experiment station at which studies are made on diversified agriculture with reference to the peculiar needs of the country and scientific investigations in chemistry, entomology, horticulture, etc.

| | |
|--|-------------|
| Salaries..... | 13, 000. 00 |
| Labor..... | 5, 000. 00 |
| Travel..... | 1, 200. 00 |
| Seeds, plants, fertilizer, etc..... | 1, 500. 00 |
| Miscellaneous expenses, including supplies, publica- tions, freight, express, fuel, light, etc..... | 5, 300. 00 |
| | <hr/> |
| | 26, 000. 00 |

Porto Rico Experiment Station, \$26,000:

Maintenance of a station to carry on experiments in agronomy, entomology, horticulture, coffee culture, and scientific investigations along various lines of agriculture.

| | |
|--|-------------|
| Salaries..... | 13, 500. 00 |
| Labor..... | 5, 500. 00 |
| Travel..... | 500. 00 |
| Live stock..... | 1, 000. 00 |
| Miscellaneous expenses, including supplies, freight, express, fuel, light, fertilizer, etc..... | 5, 500. 00 |
| | <hr/> |
| | 26, 000. 00 |

Guam Experiment Station, \$5,000:

To investigate and report to Congress on the agricultural resources and capabilities of Guam with special reference to the location of an agricultural experiment station and the determination of the character and extent of agricultural experiments immediately demanded by the agriculture of that island.

Farmers' institutes, \$10,000:

For investigating and reporting upon the organization and progress of farmers' institutes and agricultural schools in the several States and Territories, and upon similar organizations in foreign countries, with special suggestions of plans and methods for making such organizations more effective for the dissemination of the results of the work of the Department of Agriculture and the agricultural experiment stations and of improved methods of agricultural practice, and to provide for the extension of the work of aiding in the diffusion of agricultural information and education among the masses of farmers and their children in cooperation with the State authorities in charge of farmers' institutes and agricultural schools.

| | |
|-----------------------------|-------------|
| Salaries..... | 6, 950. 00 |
| Travel..... | 1, 500. 00 |
| Miscellaneous expenses..... | 1, 550. 00 |
| | <hr/> |
| | 10, 000. 00 |

\$126, 995. 00

| | |
|--|--------------|
| Amount of above appropriations for fiscal year 1907..... | 83, 500. 00 |
| Amount of above appropriations for fiscal year 1908 (increase of \$23,500)..... | 107, 000. 00 |

OFFICE OF EXPERIMENT STATIONS—Continued.

| | | |
|--|----------------|---------------|
| Amount estimated for fiscal year 1909 (increase of \$19,995) .. | \$126, 995. 00 | |
| Nutrition investigations, \$25,000: | | |
| Salaries in Washington | 9, 000. 00 | |
| Salaries out of Washington | 2, 500. 00 | |
| Stationery | 100. 00 | |
| Miscellaneous supplies, etc. | 2, 865. 00 | |
| Furniture | 500. 00 | |
| Freight | 150. 00 | |
| Express | 75. 00 | |
| Telegraph | 10. 00 | |
| Apparatus, instruments, and laboratory materials. | 1, 800. 00 | |
| Travel and station and field expenses | 500. 00 | |
| Cooperative investigations | 7, 500. 00 | |
| | | \$25, 000. 00 |
| Amount of appropriation for fiscal year 1907 | 20, 000. 00 | |
| Amount of above appropriation for fiscal year 1908 (decrease of \$15,000) | 5, 000. 00 | |
| Amount estimated for fiscal year 1909 (increase of \$20,000) | 25, 000. 00 | |

PROJECTS.

For investigating and reporting on the nutritive value of agricultural products used for human food, with special suggestions of plans and methods for the more effective utilization of such products for this purpose and the dissemination of useful information on the subject. Planning and supervision of investigations in 9 States; compilation of results of similar investigations throughout the world; preparation of reports, farmers' bulletins, and abstracts of current literature; correspondence, especially with agricultural colleges, experiment stations and schools, penal and charitable institutions; supervision of dietary studies in public institutions, the installation in Washington of the respiration calorimeter and experiments with this apparatus on the digestion of cheese and other agricultural products.

Salaries:

| | | |
|---|--------------|---------------|
| Chief expert in charge | \$2, 500. 00 | |
| Assistant expert | 2, 000. 00 | |
| Scientific assistants and incidental services. | 4, 500. 00 | |
| Materials, labor, supplies and miscellaneous expenses in connection with the conduct of experiments | 6, 000. 00 | |
| | | \$15, 000. 00 |
| Investigating the digestibility and nutritive value of different kinds of cheese in cooperation with the Connecticut or Vermont Agricultural Experiment Station | 1, 000. 00 | |
| Investigating the nutritive value and digestibility of nut and fruit products in cooperation with the California Agricultural Experiment Station and the University of California, Berkeley, Cal. | 1, 000. 00 | |
| Investigating the domestic methods of canning and preserving fruit with reference to food value, in cooperation with the University of Chicago | 500. 00 | |
| Investigating the nutritive value and digestibility of corn products in cooperation with the Maine Ex- periment Station | 1, 500. 00 | |
| Investigating the nutritive value and digestibility of wheat products in cooperation with the Min- nesota Experiment Station | 1, 500. 00 | |
| Investigating the nutritive value and digestibility of rice and other southern agricultural products in co- operation with the University of Missouri | 1, 000. 00 | |
| Investigating the digestibility of ash constituents of foods in cooperation with Columbia University | 1, 000. 00 | |

OFFICE OF EXPERIMENT STATIONS—Continued.

Salaries—Continued.

| | | |
|--|------------|-------------------|
| Investigating the nutritive value and digestibility of legumes, in cooperation with the University of Tennessee..... | \$750.00 | |
| Miscellaneous studies having a special reference to the utilization of the results of nutrition investigations in homes and schools..... | 1,750.00 | |
| Total..... | 25,000.00 | |
| Irrigation and drainage investigations, \$150,000: | | |
| Salaries in Washington..... | 25,000.00 | |
| Salaries out of Washington..... | 55,000.00 | |
| Stationery..... | 1,200.00 | |
| Miscellaneous supplies, etc..... | 18,000.00 | |
| Furniture..... | 1,500.00 | |
| Freight..... | 300.00 | |
| Express..... | 750.00 | |
| Telegraph..... | 250.00 | |
| Telephone..... | 50.00 | |
| Rent..... | 720.00 | |
| Apparatus, instruments, and laboratory material.... | 2,500.00 | |
| Travel and station and field expenses..... | 44,730.00 | |
| | | \$150,000.00 |
| Amount of above appropriation for fiscal year 1907... | 122,200.00 | |
| Amount of above appropriation for fiscal year 1908 (increase of \$27,800)..... | 150,000.00 | |
| Amount estimated for fiscal year 1909 (no increase).. | 150,000.00 | |
| The tentative allotments by States for irrigation and drainage investigations, for fiscal year 1909, are as follows: | | |
| Arkansas..... | 5,000.00 | |
| Atlantic coast States..... | 8,000.00 | |
| California..... | 9,500.00 | |
| Colorado..... | 9,000.00 | |
| Florida..... | 5,000.00 | |
| Idaho..... | 5,000.00 | |
| Illinois..... | 3,000.00 | |
| Kansas..... | 3,000.00 | |
| Louisiana..... | 4,000.00 | |
| Minnesota..... | 1,500.00 | |
| Mississippi..... | 6,000.00 | |
| Montana..... | 1,000.00 | |
| Nebraska..... | 2,000.00 | |
| Nevada..... | 1,000.00 | |
| Oregon..... | 6,500.00 | |
| South Dakota..... | 2,500.00 | |
| Texas..... | 1,500.00 | |
| Utah..... | 4,500.00 | |
| Washington..... | 4,500.00 | |
| Wyoming..... | 11,500.00 | |
| Aid and advice to settlers..... | 9,500.00 | |
| Maintenance of central supply, repair and rating station at Cheyenne, Wyo..... | 3,500.00 | |
| Special investigations and reserve..... | 13,000.00 | |
| | | <u>120,000.00</u> |

PROJECTS.

On technical investigations:

Study of losses of irrigation water and means of checking or preventing them, to be carried on in sections where development has reached the limit of the water supply under present practice, and an extension of the irrigated area dependent upon more

OFFICE OF EXPERIMENT STATIONS—Continued.

On technical investigations—Continued.

economical use of water; study of the relation of the quantity of water used and the stage of plant growth at which it is applied to the yield and quality of crops, to be carried on principally in cooperation with the State experiment stations; study of the adaptation of methods of applying water to different types of soil and to different crops.

California:

| | |
|--|------------|
| Studies of canal linings; evaporation losses and their prevention, percolation losses, and the adaptation of methods to soils... | \$3,000.00 |
| Imperial Valley..... | 2,500.00 |
| Sacramento Valley..... | 2,000.00 |

\$7,500.00

Colorado:

| | |
|---|----------|
| Experiments in irrigation of orchards and sugar beets in the Arkansas Valley to determine whether a more economical use of water can not be brought about by a change of methods without decreasing the returns.. | 1,000.00 |
|---|----------|

Idaho:

| | |
|--|----------|
| Studies of the relation of the quantities of water and time of application to yield and quality of crop, and adaptation of methods to soils and crops..... | 2,500.00 |
|--|----------|

Kansas:

| | |
|--|----------|
| Study of methods of applying water in the Arkansas Valley, for the purpose of preventing losses and bringing about the most economical use, and in pumping water for irrigation..... | 2,000.00 |
|--|----------|

Louisiana:

| | |
|--|----------|
| A study of rice irrigation and the preparation of a report describing irrigation practice in rice growing. | 1,000.00 |
|--|----------|

Minnesota:

| | |
|---|--------|
| Experiments in irrigation in lake region of northern Minnesota where summer droughts prevail..... | 500.00 |
|---|--------|

Montana:

| | |
|---|----------|
| Experiments in orchard irrigation in Bitterroot Valley, to determine effects of different methods of applying water in conserving moisture..... | 1,000.00 |
|---|----------|

Nebraska:

| | |
|--|----------|
| Study of canal organization, canal management, and methods of applying water in the North Platte Valley to determine their influence upon the economical use of water..... | 1,000.00 |
|--|----------|

Nevada:

| | |
|--|----------|
| Studies of water requirements of crops and adaptation of methods to soils and crops..... | 1,000.00 |
|--|----------|

Utah:

| | |
|--|----------|
| Study of the relation of the quantity of water used and the time of use to yield and quality of crops..... | 1,500.00 |
|--|----------|

Washington:

| | |
|---|----------|
| Experiments in orchard irrigation in cooperation with local parties, with a view to the improvement of methods and the use of smaller quantities of water.. | 3,000.00 |
|---|----------|

On irrigation extension:

Experiments to determine the practicability of irrigation in sections where it has been practiced generally, chiefly on the semiarid plains where river water is not available, the work including studies of the possibilities and cost of securing water supplies by pumping with windmills and different kinds of pumps, and by storing storm waters and studies of

OFFICE OF EXPERIMENT STATIONS—Continued.

On irrigation extension—Continued.

the methods of applying water in order to make the largest use of the small supplies available. Stations have been established for this purpose at different points on the plains. Similar studies are to be made in the humid sections of the Pacific Northwest and eastern part of the United States.

| | |
|------------------------------|------------|
| Cheyenne, Wyo..... | \$5,000.00 |
| Newcastle, Wyo..... | 5,000.00 |
| Eads, Colo..... | 5,000.00 |
| Willamette Valley, Oreg..... | 5,000.00 |

\$20,000.00

Aid and advice to settlers:

It is estimated that during the fiscal year 1909 there will be under ditch and ready for settlement 5,000,000 acres of land. It is proposed that field agents shall study the conditions under which irrigation must be practiced in the regions opening to settlement and give the settlers practical advice through demonstrations, special bulletins, personal conferences, public addresses, and correspondence..

9,500.00

Conducting demonstration stations to be established on reclamation projects of the Department of the Interior under a cooperative agreement between this Office, the Reclamation Service, and the Bureaus of Plant Industry and of Soils:

| | |
|----------------------------|----------|
| Belle Fourche, S. Dak..... | 2,500.00 |
| Minidoka, Idaho..... | 2,500.00 |

14,500.00

Maintenance of a central supply, repair, and rating station at Cheyenne, Wyo.....

3,500.00

Arkansas:

For ascertaining the value of wet lands and outlining general plans for drainage; for the continuation of drainage surveys on the low lands bordering the Mississippi River, especially in the White and Saint Francis basins; for investigations to determine the feasibility and cost of construction of the same; for investigations of the practicability of draining the prairie lands by means of roadside ditches, and improving the natural channels especially in the area where the cultivation of rice is rapidly extending; for tests of the effectiveness of underdrains in preparing the land for crops other than rice; and for improving generally malarial and unsanitary conditions.....

5,000.00

California:

For the examination of general drainage conditions and the preparation of plans for the drainage of lands in the San Joaquin and Sacramento valleys; for the continuation of experiments upon the drainage of the level lands near Fresno, where pumping of the drainage water is necessary.....

2,000.00

Colorado:

For continuing investigations and surveys to determine the best methods of draining lands in the San Luis Valley, where seepage and alkali are making rapid inroads upon the cultivated area as well as preventing the extension of settlement of adjoining unimproved land; to study the feasibility of the reclamation of the injured lands which are now estimated to amount to 40,000 acres in this valley, and to begin similar studies in the Gunnison, Grand, and Arkansas valleys.....

3,000.00

OFFICE OF EXPERIMENT STATIONS—Continued.

Florida:

For continuing investigations to determine the feasibility of draining the Everglades, and the practicability of rendering portions of this swamp area available for the raising of citrus and other subtropical fruits..... \$5, 000. 00

Illinois:

For the continuation of studies and surveys to determine the best plans for preventing injury by overflow along the Little Wabash River, and other small streams in the southern portion of the State..... 3, 000. 00

Kansas:

For rendering advisory assistance to the residents of the Neosho Valley in carrying out the improvement plans prepared by this Office, and also for observing and reporting the operation of works which have been constructed..... 1, 000. 00

Louisiana:

For making investigations and surveys to determine the practicability and the best methods of draining the low-lying lands bordering on the Mississippi River, especially in the northeastern part of the State..... 3, 000. 00

Minnesota:

For investigations of the possibility of improving by drainage such of the prairie lands as are now subject to injury by excessive water during part of the growing season; and for experiments with tile drains in the high northern latitudes..... 1, 000. 00

Mississippi:

For investigations to determine the feasibility and approximate cost of securing adequate drainage for the following three classes of land: First, the lowlands in the western part of the State which form the Yazoo Delta, and which are now traversed by tortuous and obstructed bayous, many of which are without free outlet. Second, the bottom lands along the small streams in the interior and eastern part of the State which are overflowed periodically. Third, the lands bordering the Mississippi River levees and extending in places for a distance of 1½ miles from the levee when the river surface is much higher in elevation than the adjacent land, as it is for a part of every year..... 6, 000. 00

Nebraska:

For the continuation of investigations to determine the efficiency of tile drain in removing surplus water from the heavy bottom lands along the Platte River, and for the preparation of general drainage plans for the reclamation of such land along the Platte River Valley where after being reclaimed the land might be very valuable for sugar-beet production..... 1, 000. 00

Oregon:

For investigation of the possibility of the improvement of streams used in those localities where both irrigation and drainage are necessary, and for the most successful crop production in the Willamette Valley. 1, 500. 00

Texas:

For the investigation of the possibility of the improvement of streams and the development of drainage work for the bottom lands in eastern Texas which now suffer from frequent overflows in times of flood. 1, 500. 00

Utah:

For continuing experiments and investigations to determine the possibility and profitableness of draining and reclaiming areas of land once under profitable cultivation by irrigation, and subsequently injured

OFFICE OF EXPERIMENT STATIONS—Continued.

Utah—Continued.

or ruined by the accumulation of water and alkali; for experiments to determine the most practical materials available for use in constructing under drains suitable for installation in the various soils found in the different counties throughout the State. \$3, 000. 00

Wyoming:

For investigations of the best methods of accomplishing the reclamation of lands injured by seepage water and alkali in the agricultural localities throughout the State, some of which are in locations so remote from transportation facilities that methods in use in more accessible regions can not be applied. 1, 500. 00

Washington:

For the devising of methods best adapted for use in the lower Yakima Valley to prevent the destruction of valuable land by waste water; for the determination of the most feasible ways of supplementing ordinary farm methods in ditch digging by the use of power machines suitable for making ditches in saturated soil. 1, 500. 00

Atlantic Coast States:

For continuing investigations to determine the value for agricultural purposes of areas which are at present largely salt marshes, and for studying the best methods of reclaiming the same, including the determination of the system of diking to be adopted, methods of building same, methods of getting rid of the interior water, and of bringing the soil into fit condition for agriculture. 8, 000. 00

Special investigations:

For the adequate scientific investigation of the technical problems pertaining to land drainage concerning which there is lack of existing information, including investigations of the drainage of hillside lands and of muck lands which border on peat formations; the movement and behavior of water in irrigated land; methods of testing cement drain tile; the laws of erosion of ditches and of sedimentation of ditches; the factors which determine the great variation in different classes of land with respect to the readiness with which they yield to drainage efforts, and similar questions. 7, 000. 00

Reserve:

Investigations for which plans have not yet been definitely formulated. 6, 000. 00

Miscellaneous supplies, apparatus, furniture, etc. 10, 000. 00

General planning and supervision of irrigation and drainage investigations throughout the United States; preparation of reports, drafting and other work on illustrations, correspondence with field agents and public, purchase of field instruments and accessories, etc. 20, 000. 00

150, 000. 00

Summary—irrigation and drainage investigations, 1909:

On irrigation—

Technical investigations. 22, 000. 00

Aid and advice to settlers. 14, 500. 00

Irrigation extension. 20, 000. 00

Maintenance of central supply, repair, and rating station at Cheyenne, Wyo. 3, 500. 00

On drainage investigations. 60, 000. 00

Miscellaneous supplies, apparatus, furniture, etc. 10, 000. 00

General planning and supervision of irrigation and drainage investigations throughout the United States; preparation of reports, drafting and other

OFFICE OF EXPERIMENT STATIONS—Continued.

Summary—irrigation and drainage investigations, 1906—
Continued.

On irrigation—Continued.

| | |
|---|-------------|
| work on illustrations, correspondence with field agents and public, purchase of field instruments and accessories, etc..... | \$20,000.00 |
| | 150,000.00 |

Recapitulation of the several appropriations for the Office of Experiment Stations as enumerated above, fiscal year 1909, \$336,615:

| | |
|--|---------------------|
| Office of Experiment Stations, statutory salaries..... | 34,620.00 |
| Agricultural experiment stations, general expenses... | 33,995.00 |
| Alaska Experiment Station..... | 26,000.00 |
| Hawaii Experiment Station..... | 26,000.00 |
| Porto Rico Experiment Station..... | 26,000.00 |
| Guam Experiment Station..... | 5,000.00 |
| Farmers' institutes..... | 10,000.00 |
| Nutrition investigations..... | 25,000.00 |
| Irrigation and drainage investigations..... | 150,000.00 |
| | <u>\$336,615.00</u> |

Total appropriations for the Office of Experiment Stations for the fiscal year 1907, including \$569.55 derived from sale of card indexes..... 975,429.55

Total appropriations for the fiscal year 1908 (increase of \$37,790.45)..... 1,013,220.00

Total estimate of appropriations for the fiscal year 1909 (increase of \$43,395)..... 1,056,615.00

OFFICE OF PUBLIC ROADS.

[Salaries, Office of Public Roads—\$15,240.]

| | |
|--|------------|
| One director, who shall be a scientist and have charge of all scientific and technical work (increase of \$250 submitted)..... | \$3,000.00 |
| One chief of records..... | 1,600.00 |
| One editorial clerk..... | 1,200.00 |
| One clerk, class 2 (submitted)..... | 1,400.00 |
| Three clerks, class 1 (increase of 1 submitted)..... | 3,600.00 |
| Three clerks, at \$1,000 each..... | 3,000.00 |
| Two clerks, at \$720 each..... | 1,440.00 |

Total amount estimated..... 15,240.00

NOTE.—The salary of the director has been increased from \$2,750 to \$3,000, and 1 clerk of class 2 and 1 clerk of class 1 have been added. Total increase, \$2,850.

Amount of above appropriation for fiscal year 1907..... \$12,340.00

Amount of above appropriation for fiscal year 1908 (increase of \$50)..... 12,390.00

Amount estimated for fiscal year 1909 (increase of \$2,850)..... 15,240.00

The above force will perform the following duties:

Administrative and executive:

| | |
|---------------------------|-----------------|
| One director..... | \$3,000.00 |
| One chief of records..... | 1,600.00 |
| | <u>4,600.00</u> |

Correspondence, accounts, and files:

| | |
|------------------------------------|-----------------|
| One clerk, class 2..... | 1,400.00 |
| Three clerks, class 1..... | 3,600.00 |
| Three clerks, at \$1,000 each..... | 3,000.00 |
| Two clerks, at \$720 each..... | 1,440.00 |
| | <u>9,440.00</u> |

Editorial and library: One editorial clerk..... 1,200.00

Total..... 15,240.00

^aThis does not include \$720,000 for State experiment stations under the regular appropriation, to be paid through the Treasury Department.

OFFICE OF PUBLIC ROADS—Continued.

[Public Road Inquiries, 1909—\$91,620.]

| | | |
|--|-------------|-------------|
| Salaries: | | |
| In Washington..... | \$39,850.00 | |
| Out of Washington..... | 20,000.00 | |
| Stationery..... | 500.00 | |
| Miscellaneous supplies and services, equipment, books, machinery, etc..... | 10,000.00 | |
| Furniture..... | 270.00 | |
| Freight..... | 2,500.00 | |
| Express..... | 150.00 | |
| Heat..... | 150.00 | |
| Telegraph..... | 150.00 | |
| Telephone..... | 50.00 | |
| Rent..... | 2,000.00 | |
| Apparatus, instruments, and laboratory material..... | 2,000.00 | |
| Traveling and other field expenses..... | 14,000.00 | |
| Total amount of appropriation..... | | \$91,620.00 |
| Amount of above appropriation for fiscal year 1907..... | 57,660.00 | |
| Amount of above appropriation for fiscal year 1908 (no increase)..... | 57,660.00 | |
| Amount estimated for fiscal year 1909 (increase of \$33,960)..... | 91,620.00 | |
| Total of all appropriations estimated for the Office of Public Roads for the fiscal year 1909..... | | 106,860.00 |

PROJECTS.

The following are the more important projects proposed to be conducted by the Office of Public Road Inquiries under above appropriation:

| | |
|---|-------------|
| No. 1. Object-lesson roads—Mr. Vernon M. Peirce, chief engineer, in charge: | |
| Salaries..... | \$15,500.00 |
| Traveling expenses..... | 2,300.00 |
| Freight and drayage..... | 2,000.00 |
| Lease of rollers..... | 855.00 |
| Miscellaneous..... | 345.00 |
| | \$21,000.00 |
| No. 2. Instruction in highway engineering— | |
| Dr. A. S. Cushman, assistant director, | |
| and Mr. Vernon M. Peirce, chief engineer, in charge: | |
| Salaries, 11 engineer students, at \$600..... | 6,600.00 |
| Traveling expenses..... | 5,000.00 |
| | 11,600.00 |

The purpose of this project is, first, to build up a corps of trained highway engineers for the Government service and, second, to increase the supply of competent highway engineers for State and county work. The remarkable success of the French road system is largely due to the fact that the Government maintains a school of roads and bridges from the graduates of which their corps of highway engineers is recruited. A small number of graduates in engineering are appointed each year, after competitive examination, to the position of civil engineer student in this Office at a salary of \$50 per month and field expenses. These young men are given practical training in all branches of road work and at the expiration of one year are promoted and retained in the service, or given a certificate showing completion of the graduate course. The Government receives a full return for the expense incurred, as the services of these young men are valu-

OFFICE OF PUBLIC ROADS—Continued.

| | | |
|---|------------|------------|
| No. 2. Instruction in highway engineering—Continued. | | |
| able from the outset. Only 15 students have been appointed to the present time, but the results have been so encouraging that an increase of \$6,600 has been requested for this project, which will enable us to appoint 11 students. This instruction is being supplemented by cooperation with colleges in lecture work and the preparation of courses of study. | | |
| No. 3. Testing road materials—Dr. A. S. Cushman, assistant director, in charge: | | |
| Salaries..... | \$4,500.00 | |
| Supplies and miscellaneous expenses..... | 800.00 | |
| | | \$5,300.00 |
| No. 4. Road mileage, revenues, and expenditures. This project has been completed. | | |
| No. 5. Lectures, addresses, and papers—Mr. L. W. Page, director, in charge: | | |
| Salaries..... | 2,200.00 | |
| Traveling expenses..... | 2,000.00 | |
| | | 4,200.00 |
| No increase has been requested over the allotment for the current fiscal year. | | |
| No. 6. Special advice and inspection—Dr. A. S. Cushman, assistant director, and Mr. Vernon M. Peirce, Chief Engineer, in charge: | | |
| Salaries..... | 1,800.00 | |
| Traveling expenses..... | 1,000.00 | |
| | | 2,800.00 |
| No increase has been requested over the amount allotted for the current fiscal year. | | |
| No. 7. Investigation of dust preventives—Mr. L. W. Page, director, in charge: | | |
| Salaries..... | \$3,200.00 | |
| Traveling expenses..... | 1,300.00 | |
| Materials and miscellaneous expenses..... | 3,600.00 | |
| | | 8,100.00 |

In recent years perhaps the most important, and certainly the most difficult, problem which has engaged the attention of highway engineers is that of dust prevention, or rather the preservation of our macadam roads from the destructive effects of modern traffic. So destructive to macadam roads has been the automobile traffic that the minister of public works of France, according to report, has been authorized to call an international convention in 1908 for the purpose of considering methods to prevent roads from being damaged by this traffic. The existence of our macadam roads depends upon the retention of the rock dust formed by the wearing of the surface. Under ordinary traffic conditions this dust remains on the road and consolidates when moist to form a fresh wearing surface. Heavy automobiles moving at a high rate of speed subject the surface of the road to an immense tractive force, which throws a large amount of dust into the air to be carried off by the wind. This action strips the macadam road of all fine material, the result being rapid disintegration. Investigations have been conducted with a view to treating the road surface so

OFFICE OF PUBLIC ROADS—Continued.

No. 7. Investigation of dust preventives—Continued.

as to minimize the formation of dust, retain the original bond of the road, and to supply a thin wearing surface which will resist the disintegrating effect of the automobile. Investigations have been made of the systems in use in France and England, and experiments have been conducted with oil and tar, and various preparations, in Kentucky and Massachusetts during the past season. This is a subject which should engage the earnest attention of the National Government at once. No matter how important we may deem the building of hard roads, we can not but consider it even more important to preserve those which have already been built. Accordingly, about 20 per cent of the increase recommended is desired for this work.

No. 8. Inspection of rural delivery roads—Mr.

V. M. Peirce, chief engineer, in charge:

| | | |
|-------------------------|----------|------------|
| Salaries..... | \$600.00 | |
| Traveling expenses..... | 400.00 | |
| | <hr/> | \$1,000.00 |

No increase has been requested over the amount allotted for the current fiscal year.

No. 9. Standardization of tests—Mr. L. W. Page,

Director, in charge:

| | | |
|---------------|----------|--------|
| Salaries..... | \$400.00 | 400.00 |
|---------------|----------|--------|

No increase has been requested over the amount allotted for the current fiscal year.

No. 10. Introduction of model systems—Mr. L.

W. Page, director, and Mr. V. M.

Peirce, chief engineer, in charge:

| | | |
|-------------------------|------------|----------|
| Salaries..... | \$4,200.00 | |
| Traveling expenses..... | 800.00 | |
| | <hr/> | 5,000.00 |

Under this project engineers are assigned upon the request of local authorities to investigate the entire road system of a county, its road materials, organization, methods of administration, construction and maintenance, and to prepare a report and working plan with estimates, based upon actual surveys and inspection. An investigation was completed in Santa Barbara County, California, during the past year and somewhat similar work was done in MacDowell County, W. Va. This project is of such unquestioned practical value as to justify a considerable extension. An increase has therefore been requested of \$4,400 over the amount allotted for the current fiscal year.

No. 11. Investigation of road materials in the several States—Mr. L. W. Page, director, in charge:

| | | |
|-------------------------|------------|----------|
| Salaries..... | \$2,000.00 | |
| Traveling expenses..... | 1,000.00 | |
| | <hr/> | 3,000.00 |

The appropriation bill provides specifically for an investigation of road materials in the several States. The project is one of too great magnitude to be undertaken by the Office alone with its present appropriation, but it has been determined to cooperate as fully as possible with the highway commissions and geological surveys of the various States, the data to be published in a series of bulletins. During the past year such an investigation was begun in Minne-

OFFICE OF PUBLIC ROADS—Continued.

No. 11. Investigations of road materials in the several States—Continued.

sota in cooperation with the State highway engineer. It is hoped to secure accurate information as to the location, character, quantity, and quality of all road materials, probable cost of making the material available, feasibility of establishing State or county quarries, etc. It is manifestly impossible to conduct this exceedingly important investigation without an increase in the amount available. Accordingly the estimate for 1909 carries an increase of \$2,000.

No. 12. Introduction of sand-clay and burnt-clay roads—Mr. V. M. Peirce, chief engineer, in charge:

| | |
|-------------------------|-------------|
| Salaries..... | \$3, 000.00 |
| Traveling expenses..... | 800.00 |

\$3, 800.00

Sand-clay roads can be constructed at very moderate cost in many sections of the country, while in the Mississippi delta the results of burnt-clay experiments are most promising. These roads, when properly constructed, frequently serve the purpose for which they are intended nearly as well as stone roads, and in view of the low cost of constructing such roads and the abundance of sand and clay available, every effort should be made to introduce these forms of construction wherever practicable. The increase requested for this project is \$3,800.

No. 13. Investigation of systems of road management and accounting—Mr. J. E. Pennybacker, jr., chief of records, in charge:

| | |
|-------------------------|-------------|
| Salaries..... | \$1, 500.00 |
| Traveling expenses..... | 850.00 |

2, 350.00

The appropriation bill provides for the investigation of systems of road management in the several States. This project will be taken up during the current fiscal year and continued with a view to obtaining definite information concerning every phase of road management and accounting in the United States. This information will be used as a basis for preparing bulletins setting forth the evils to be remedied and suggesting needed changes in the systems. Systems of accounting adapted to the needs of counties and townships will be suggested through the medium of bulletins. The increase for this project over the allotment for the current fiscal year is \$2,100.

No. 14. Split-log drag—Mr. Vernon M. Peirce, chief engineer, in charge:

| | |
|-------------------------|-------------|
| Salaries..... | \$1, 800.00 |
| Traveling expenses..... | 800.00 |

2, 600.00

The maintenance of earth roads is of immediate importance, and the split-log drag is a certain and inexpensive means of improving an earth road under average conditions. The split-log drag can be easily constructed and operated, and the purpose of this project is simply to introduce it throughout the country. An increase of \$2,000 over the amount allotted for the current fiscal year is recommended.

OFFICE OF PUBLIC ROADS—Continued.

No. 15. Experiments with oils on natural soils—

L. W. Page, director, in charge:

| | |
|-------------------------------|------------|
| Salaries..... | \$1,000.00 |
| Traveling expenses..... | 500.00 |
| Materials, supplies, etc..... | 300.00 |

\$1,800.00

In many cases macadam roads are impracticable owing to lack of hard materials and peculiar climatic conditions. It is the purpose of this investigation to determine whether oil can be used to advantage on the natural soil. If a method of construction on this basis can be developed, it will be of great value in the sections of country producing oil with an asphalt base. The increase over the amount allotted for the current fiscal year is \$1,400.

No. 16. Investigation of slag as a road material—

Mr. V. M. Peirce, chief engineer, in charge:

| | |
|-------------------------------|----------|
| Salaries..... | \$600.00 |
| Traveling expenses..... | 500.00 |
| Materials, supplies, etc..... | 460.00 |

1,560.00

Considering the scarcity of road materials in many sections of the country and the inferior quality of materials which are frequently used, it is believed that a thorough investigation and test of furnace slag is justified. The increase over the amount allotted for the current fiscal year is \$1,360.

No. 17. Corrosion of iron and steel—Dr. A. S.

Cushman, assistant director, in charge:

| | |
|---|----------|
| Salaries..... | \$800.00 |
| Purchase of samples for service tests | 400.00 |
| Labor in handling and treating samples..... | 500.00 |
| Traveling expenses..... | 600.00 |
| Purchase of materials to be used in experiments on the preservation of boilers..... | 200.00 |
| Purchase of various types of iron and steel culverts for service tests | 300.00 |

2,800.00

This investigation is designed to ascertain the causes for the corrosion of iron and steel, and has been remarkably successful. It has been demonstrated that the generally accepted theories regarding the oxidation of iron and steel are incorrect. Under certain circumstances strong oxidizing agents can be used to prevent rust. Following Doctor Cushman's suggestions, the leading manufacturers are making efforts to turn out steel that will be highly resistant to corrosion. The importance of this work can not be overestimated. The increase recommended over the amount allotted for the current fiscal year is \$2,000.

No. 18. Classification of road material—Dr. E. C. E. Lord, petrographer, in charge:

Salaries.....

600.00

No increase has been requested.

No. 19. Cooperation with Forest Service—Mr. V. M. Peirce, chief engineer, in charge. (This project has been completed.)

OFFICE OF PUBLIC ROADS—Continued.

| | |
|--|------------------|
| No. 20. Cooperation with Geological Survey: | |
| Salaries..... | \$400. 00 |
| No increase has been requested. | |
| No. 21. Bulletins on road laws, history of road building, bibliography, and construction of macadam roads—Messrs. J. E. Pennybacker, Archer B. Hulbert, and Austin B. Fletcher, in charge. (No estimate.) | |
| No. 22. Concrete and cement investigation—Mr. Philip L. Wormeley, testing engineer, in charge. (No estimate.) | |
| No. 23. Quarters..... | 2, 750. 00 |
| No increase has been requested. | |
| No. 24. Machine shop..... | 800. 00 |
| No increase has been requested. | |
| No. 25. Permanent equipment, consisting of machinery and instruments to complete field outfits..... | 3, 000. 00 |
| An increase of \$2,000 over amount allotted for the current fiscal year has been requested. | |
| No. 26. Office expenses. (No estimate, as no payments of this character are contemplated.) | |
| No. 27. The decomposition of rocks under the action of water—Dr. A. S. Cushman, assistant director, in charge: | |
| Salaries..... | 1, 200. 00 |
| No. 28. Classification of roads—Mr. V. M. Peirce, chief engineer, and Mr. J. E. Pennybacker, jr., Chief of Records, in charge: | |
| Salaries..... | \$800. 00 |
| Preparation of maps, purchase of materials, etc..... | 900. 00 |
| | <hr/> 1, 700. 00 |
| Under this project maps and bulletins will be prepared giving useful information regarding the principally traveled wagon roads throughout the United States, classified according to conditions and character of construction. The increase in this project is provided for by funds arising from completion of other projects. | |
| No. 29. Cooperation with newspapers in the publication of practical articles on road construction, maintenance, and administration—Mr. J. E. Pennybacker, jr., Chief of Records, in charge: | |
| Salaries..... | 800. 00 |
| This project involves the preparation of articles by engineers and experts of this Office to be sent out on a mailing list composed of papers which have agreed to publish the articles. The increase in this project is provided for by funds arising from completion of other projects. | |
| No. 30. Contingent fund..... | 3, 060. 00 |

OFFICE OF PUBLIC ROADS—Continued

| | |
|---|-------------|
| Total appropriations for Office of Public Roads for the fiscal year 1907..... | \$70,000.00 |
| Total appropriation for fiscal year 1908 (increase of \$50).... | 70,050.00 |
| Total estimate of appropriations for fiscal year 1909 (increase of \$36,810)..... | 106,860.00 |

United States Department of Agriculture.

RECAPITULATION.

| | Expenditures for fiscal year 1907. | Appropriations for fiscal year 1908. | Estimates of appropriations for fiscal year 1909. |
|--|--|--|--|
| Office of the Secretary..... | \$111,476.91 | \$119,200.00 | \$134,220.00 |
| Paper making..... | | | 10,000.00 |
| | | | 144,220.00 |
| Weather Bureau..... | 1,319,386.17 | 1,413,540.00 | 1,529,060.00 |
| Bureau of Animal Industry..... | 3,113,547.81 | 4,168,291.90 | 4,231,410.00 |
| Bureau of Plant Industry..... | 989,012.06 | 1,199,641.82 | 1,317,676.00 |
| Buildings, Department of Agriculture..... | 535,594.61 | 495,340.07 | |
| | 1,524,606.67 | 1,694,981.89 | |
| Forest Service..... | 1,901,101.93 | 2,920,000.00 | 3,196,200.00 |
| Bureau of Chemistry..... | 231,209.16 | 697,920.00 | 816,720.00 |
| Bureau of Soils..... | 219,278.96 | 206,980.00 | 240,600.00 |
| Bureau of Entomology..... | 248,475.87 | 317,417.27 | 375,600.00 |
| Bureau of Biological Survey..... | 50,975.12 | 52,000.00 | 69,950.00 |
| Division of Accounts and Disbursements..... | 32,165.00 | 41,790.00 | 46,490.00 |
| Division of Publications..... | 246,704.82 | 161,550.00 | 181,830.00 |
| Bureau of Statistics..... | 203,586.93 | 219,940.00 | 239,340.00 |
| Library..... | 23,844.47 | 28,380.00 | 35,580.00 |
| Office of Chief Clerk (contingent expenses, Department of Agriculture)..... | 36,411.12 | 47,000.00 | 78,200.00 |
| Office of Experiment Stations..... | ^a 250,453.43 | ^a 293,220.00 | ^a 336,615.00 |
| Office of Public Roads..... | 67,318.50 | 70,050.00 | 106,860.00 |
| Total expenditures to September 30, 1907..... | 9,580,542.87 | | |
| Outstanding liabilities on September 30, 1907, against appropriations for fiscal year 1907 (estimated)..... | 233,319.38 | | |
| Balance available in fiscal year 1908..... | 569,944.78 | | |
| Unexpended balance to be turned back in Treasury (estimated)..... | 1,153,122.65 | | |
| Total appropriations for Department of Agri- culture..... | 11,536,929.68 | 12,452,261.06 | 12,946,351.00 |

^a Does not include \$720,000 for State experiment stations under the regular appropriation, to be paid through the Treasury Department.



